FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

No. 30,098 — Monday December 1 1986 — D 8523 B

Germany rockets into the spacerace, Page 2

World news

Sikhs kill 24 Hindus in Punjab massacre

Sikh extremists shot dead 24 Hindu bus passengers and wounded eight others in northern Punjab state, prompting fears of a backlash.

At least four gunmen forced a 45-seater bus off the road in a remote area and ordered all the Hindu passengers out. They escaped after shooting their victims at close range.

It was the biggest massacre of Hindus in Punjab since extremists shot 14 Hindus at Mukhtsar in July, an incident which led to Hindu-Sikh riots in Delhi.

Bhopal go-ahead

The Indian Government and Union Carbide cleared the way for court hearings in January on compensation claims totalling $3bn over the lethal gas leak which claimed thousands of lives in Bhopal two years ago. Page 3

Taiwan return foiled

Hsu Hsin-liang, outspoken critic of the Taiwan Government, failed in his attempt to return to his country when he was refused permission to board a flight from Tokyo. A violent confrontation followed between his supporters and riot police in Taipei. Page 5

Kremlin crackdown

Soviet leaders have ordered a crackdown on abuses in the country's police force and judiciary as part of a drive by leader Mikhail Gorbachev to root out corruption. Page 2

Vanunu in court

Former nuclear technician Mordechai Vanunu, accused of espionage and treason for telling a British newspaper that Israel was producing nuclear weapons, appeared in a Jerusalem court, his first appearance in public for two months. The hearing was adjourned.

Basque election

The centre-right Basque Nationalist Party was last night heading for its first regional defeat against Spain's ruling Socialist Party in elections to the autonomous Basque Parliament, according to official estimates based on more than half the ballot count.

Palestinian grip

Palestinian guerrillas tightened their grip on a hilltop village in south Lebanon in their continuing battle with Shia Amal forces. The PLO called for an emergency meeting of Arab foreign ministers to end the feuding.

Nixon papers on view

White House papers that former US President Richard Nixon once thought he could keep secret will be opened to public inspection in Washington today after a 12-year battle over their fate.

Pope's odyssey

Pope John Paul wound up a remarkable odyssey through Australia that was hailed by commentators as a resounding success. In less than a week, he travelled 6,000 miles to the capital of every state and territory.

Soviet fireball

A Soviet newspaper blamed the carelessness of railway staff for an incident in which a cargo train carrying inflammable chemicals collided with a passenger train and burst into flames. Two people were killed and 23 injured.

Compulsory saving

Norway plans to enforce savings of 1 per cent of gross income for all earning above the equivalent of $13,000 a year to dampen consumer demand. The money will be deposited in fixed-interest accounts with the Central Bank.

Cary Grant dies

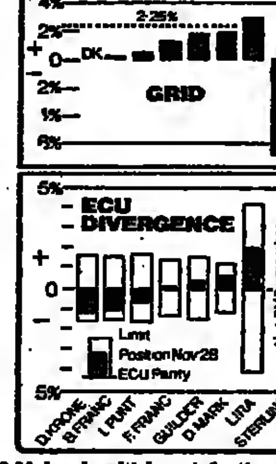
Cary Grant, the suavest romantic lead in cinema history, died at 82 after a stroke in Davenport, Iowa. Obituary, Page 17.

Business summary

St Gobain flotation success 'assured'

SAINT-GOBAIN, the French glass and engineering group which is being privatised, has already been heavily oversubscribed. The issue closes on December 5. Page 21

EUROPEAN Monetary System: The Belgian franc remained weak within the EMS last week as renewed dollar weakness pushed the D-Mark firmer. Disappointing US economic data saw the dollar fall below the psychologically important DM



2.00 level, which put further pressure on weaker members of the system such as the Belgian franc and the Danish krone. However, both currencies traded within their divergence limits, with the Danish krone at 57 per cent of its maximum divergence spread on Friday compared with 63 per cent the previous week.

The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent. The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

JAPAN'S nine main electric power utilities' combined pre-tax profits surged 62.5 per cent to Y620.1bn ($3.83bn) in the first half-year to September. Page 23

TIFFANY building in New York City is being sold by Pacific Realty, a closely held US property company, to Dai-Ichi Real Estate of Tokyo, for more than $94m.

BELL CANADA Enterprises' chairman Robert Richardson is retiring after three years and is being succeeded by Raymond Cyr, now president of BCE's telecommunications subsidiary Bell Canada.

AGRICOLA Finanziaria, the quoted subsidiary of Raul Gardini's Ferruzzi empire, has reported net earnings of L28bn ($20.5m) for its first six months to August, 5½ times higher than during the same period in 1985.

BANK of Nova Scotia, Canada's fourth-biggest banking group, raised net income to C$336.2m (US$243m) in the year to October 31, from C$303.6m in 1985. Page 23

PLESSEY, the UK electronics and defence group, has failed to break into the French market with its System X telephone exchange equipment. Page 23

ISUZU Cars (Great Britain), the privately owned company which imports Isuzu vehicles from Japan, has been placed in the hands of a receiver. Page 8

PETRO-LEWIS, struggling Denver-based oil and gas group which was one of the most aggressive marketers of oil and gas partnerships during the boom in oil prices, has defaulted on some of its debt payments and is considering filing for protection under Chapter 11 of the US bankruptcy code. Page 21

TOKYO Bond index, calculated by Nomura Research Institute, covering Japanese domestic and yen-denominated foreign issues, will appear every Monday in the FT. Today it is on Page 22. In Saturday's half-day stock-exchange session in Tokyo, the Nikkei index rose 242.48 to 18,325.5. Leading share prices, Page 28

ROW GROWS OVER IRANIAN ARMS SCANDAL

Reagan urged to support calls for investigation

BY LIONEL BARBER IN WASHINGTON

PRESIDENT Ronald Reagan returned to the White House yesterday to face impassioned appeals from leading Republicans and Democrats to salvage his presidency by supporting calls for a Watergate-style bipartisan committee of Congress to investigate the Iran arms scandal.

Mr Reagan, his popularity and credibility sapped by the growing controversy, is also under pressure to appoint a special independent prosecutor to replace the Justice Department inquiry led by his close friend Mr Edwin Meese, the US Attorney General.

The White House has been thrown into disarray by the scandal, which has raised doubts about the President's judgments, his leadership and the competence of his senior advisers.

Sen Robert Dole, the Republican who remains majority leader until January, said Mr Reagan should call a special session of the 99th Congress, now in recess, to appoint a bipartisan commission on the lines of the Watergate inquiry led by Senator Sam Erwin in 1973. A special session of Congress would be the first in 40 years.

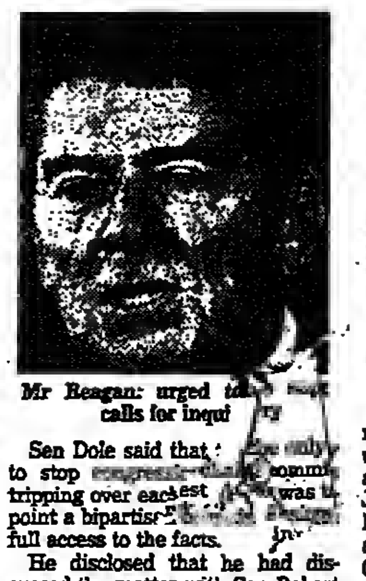
Sen Dole, warning that the President had to "come clean" fast to salvage his authority and standing before the American people and America's allies, said in a reference to the Watergate scandal which brought down President Richard Nixon in 1974: "We can't afford another failed presidency."

Sen Richard Lugar, another strong Republican supporter of Mr Reagan, said yesterday that the President needed to clean out some of his top White House advisers to stem the crisis: "He has to have a new beginning. Every policy is in shambles."

Criticism from the Republicans, Mr Reagan's own party, is doubly damaging to the President who is already under heavy fire from the Democrat Party, which takes control of the Senate and House of Representatives on January 6 when the 100th Congress reconvenes.

More than 15 congressional committees are planning to open their own investigations into the scandal, which led to up to $30m in profits from US arms sales to Iran being skimmed off to Contra rebels fighting the Marxist Sandinista Government in Nicaragua.

The money laundering was conducted by a key White House aide, Lt Col Oliver North, at a time when Congress had banned indirect and direct military aid to the Contras, according to Mr Meese who revealed details of the scandal last week.



Mr Reagan: urged [illegible] calls for inquiry

Sen Dole said that [illegible] to stop [illegible] tripping over each [illegible] point a bipartisan [illegible] full access to the facts.

He disclosed that he had discussed the matter with Sen Robert Byrd, who will become the new Senate majority leader in January and said that the commission's members should be the "best and the brightest" among House and Senate figures.

President Reagan, who spent a sombre Thanksgiving holiday at his mountain ranch near Santa Barbara, California, has yet to admit, as John F. Kennedy did after the Bay of Pigs fiasco, that he made a mistake. But there is growing scepticism that knowledge of the arms deals was confined in his Administration to Lt Col North and Vice Admiral John Poindexter, the National Security Adviser who resigned last week.

Mr Reagan also faces difficulties in the appointment of a successor to Mr Poindexter amid reports of infighting among his advisers. Mr Donald Regan, White House Chief of Staff, who is resisting calls for his resignation, is apparently in favour of Mr David Abshire, the former US representative to Nato.

Mr Abshire is seen as a compromise candidate, with right wingers urging the President to be bold and appoint a tough figure such as Mr John Lehman, Navy Secretary, or Ms Jeanne Kirkpatrick, former US ambassador to the United Nations. Others favour Mr Bobby Ray Inman, former deputy director of the CIA.

The debate over the National Security Adviser mirrors the lack of decisive action within the Administration and the failure of the President to exert leadership, a frustrated Sen Lugar said yesterday.

The choice has been complicated by the fact that two leading conten-

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Terrorism and drugs to top EEC agenda

BY QUENTIN PEEL IN BRUSSELS

JOINT European action against terrorism and drug-trafficking will be one of the two key items for the EEC summit in London this week.

The issue has been given added urgency by agreement among the member states on the need for further measures following last week's Berlin bomb trial.

British officials believe that much closer co-operation and exchange of information between European police and security services – set in train by EEC interior ministers – will turn out to be one of the most important achievements of the six months' British chairmanship of the Community.

Mrs Margaret Thatcher, the British Prime Minister, will be calling on her fellow heads of government to endorse further joint action and a broad approach involving tougher controls at external EEC frontiers with easier movement inside the Community.

All the subjects in that debate – including co-ordination and eventual harmonisation of EEC visa policies, co-operation to avoid the abuse of passports, and a common policy on the right of asylum – are being pursued by the interior ministers. Another meeting under the chairmanship of Mr Douglas Hurd, the British Home Secretary, is scheduled for next week after the summit. A preliminary report has been prepared by high-level officials.

Broad agreement among the 12 on what Downing Street calls "maintaining the freedom of our societies" is likely to be more straightforward than the other main debate of the summit – on tackling unemployment, speeding up progress towards a single Common Market and promoting small businesses.

European trade unions are already up in arms because "Mrs Thatcher could not find the time to receive a trade union delegation" in advance of the summit, according to the European Trade Union Confederation (ETUC).

It is usual for the host at an EEC summit to see representatives of both employers and trade unions in advance. The ETUC said the latest failure to do so was "all the more regrettable at a time when unemployment is very high, and poverty zones shamefully extend in our developed countries."

The trade union suspicion is that Mrs Thatcher will try to put all the emphasis in the debate on greater flexibility in labour markets and promoting small businesses through deregulation, rather than on promoting public and private investment and infrastructure spending, as favoured by the unions.

Britain steps up pressure on EEC trade barriers, Page 2; Editorial comment, Page 18

Singapore delegation to study Brunei bank affair

BY JOYCE QUEK IN SINGAPORE

SINGAPORE'S most senior financial regulator flew to Brunei at the weekend in an attempt to assess the implications for the region's banking system of the closure of National Bank of Brunei (NBB), majority owned by Tan Sri Khoo Teck Puat, the Malaysian-born financier who is based in Singapore.

Mr Joe Pillay, managing director of the Monetary Authority of Singapore, the island's powerful quasi-central bank, led a team of four top officials for meetings with the Brunei Finance Ministry. They were seeking clarification on the financial position at NBB following a raid by police last month and fraud charges against senior bank officers.

Tan Sri Khoo, who owns some 70 per cent of NBB, is not among those sought by the Brunei authorities. None the less, in the wake of the events, he resigned last Thursday from the board of Standard Chartered Bank in the UK.

In Singapore, the MAS moved to calm fears that the NBB affair could have ramifications similar to those following the collapse of Pan-Electric Industries, a marine salvage and property company, just under a year ago.

A MAS official said: "There is no danger to our banking system. This time, there is no closure of the stock exchange, no broking firm involved, no lifeboat" (an emergency fund for stockbrokers which was set up last December).

Although total loans by Singapore banks to Tan Sri Khoo's companies exceeded the S$400m (US$182.3m) at stake in the Pan-Electric collapse, he added, their exposure to NBB alone was less. Loans to Khoo interests were "fairly well secured."

His statement may lend some comfort to around 30 banks with an NBB exposure which are hoping to meet the MAS today in order to learn the results of its inquiries. Some 40 representatives of banks in Singapore, local and foreign, met on Friday at the instigation of National Westminster Bank of the UK.

Mr Khoo Ban Hock, Tan Sri Khoo's son who has been NBB chairman, is one of five people arrested since the sultanate seized control of the bank on November 20. He is charged with alleged false accounting and conspiracy to defraud involving B$1bn (US$593m), primarily through loans to interests related to the Khoo family which are claimed to have been made without adequate security and with interest unpaid.

Expatriates spurn UK vote role

By Peter Riddell, in London

THE EXTENSION of the right to vote to British citizens living outside the UK has flopped, with only 2½ per cent of those qualified to do so having registered to vote.

Foreign Office figures show that by the last registration date of October 10, a total of 12,207 people had declared at British consulates abroad that they wished to be overseas electors. This compares with the estimated 500,000-plus qualified expatriates under the terms of last year's Representation of the People Act extending the franchise.

Only those registered by October 10 will be able to vote in any British general election when the 12-month register comes into effect next February. That covers any summer or autumn general election.

The Foreign Office admits that it would have preferred to have seen

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Turkey seeks deal on workers' migration

BY DAVID BARCHARD IN ANKARA

TURKEY is to try to persuade the EEC to agree a compromise on the free movement of Turkish workers in Western Europe.

Under the 1972 Ankara protocol between Turkey and the Community, all Turkish nationals should from today have the right to work in any EEC country.

Turkey regards the protocol as a binding commitment but is seeking a compromise in return for increased aid and trading rights and for EEC agreement for it to become a full EEC member before the end of the century.

Professor Ali Bozer, Minister of State for EEC affairs, said he planned to visit all EEC capitals in the next few weeks to press Turkey's case. He said he intended to include a visit to Greece.

EEC lawyers are thought to be pressing the argument that the December 1 deadline refers only to the completion of arrangements by the Community for the free circulation of Turkish workers in Europe and not to actual migration.

Prof Bozer said, however, that there had been no Community legal counter-argument presented in a letter sent to him last week by Britain in its capacity as President of the EEC.

He said the issue could be resolved only at a meeting of the EEC-Turkey Joint Association Council. "I would prefer to have a meeting of the council held as soon as possible," he said.

However, meetings with Community leaders, including Mr Claude Cheysson, Commissioner for Mediterranean Affairs, and Sir Geoffrey Howe in his capacity as President

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Boom in UK accountancy firms continues with latest figures

BY BARRY RILEY IN LONDON

A CONTINUING boom for the British accountancy profession will be revealed by figures to be released by several major firms of accountants during the next few weeks.

First off the mark is Ernst & Whinney, the fifth-largest firm in the UK, which today reports a 22 per cent increase in turnover to £88m ($126m) in the year ended August 31. This expansion is said to have created 320 jobs.

Mr Elwyn Eilledge, senior partner, said that a key factor was "our ability to continue to improve the quality of service to existing clients while at the same time attracting new business."

However, it is not clear that Ernst & Whinney's growth rate will turn out to be particularly high by the standards of the big firms as a whole. Price Waterhouse, for example, will also reveal a growth in turnover of more than 20 per cent when it reports in two weeks' time.

Arthur Andersen, meanwhile, says that it has achieved growth in real terms (that is, chargeable hours) of more than 25 per cent in its important consultancy operation.

Turnover figures for accountants are to some extent being swollen by the big pay increases which are being built into their hourly charging rates. With fierce competition for skilled staff, salaries in London have been rising at more than 10 per cent a year even though general inflation has been only around 3 per cent.

Nevertheless underlying real expansion has been very strong. Although growth in auditing has usually only been modest, increases of the order of 10 per cent in chargeable hours in tax work is claimed by several of the big firms. Elsewhere, management consultancy continues to be the leading growth activity of the profession.

Much of the growth of the profession is linked to the buoyancy of the financial markets. The high level of takeovers and new issues, including privatisation offers by the Government, has stimulated investigations work and has created new public company audit clients. Growing wealth of individuals, as well as companies, has stimulated demand for tax advice.

Moreover Big Bang and other less dramatic structural changes within the financial services industry have generated an enormous – and price-insensitive – demand for advice on systems and management controls, leading to the hectic expansion in the big accounting firms' management consultancy divisions.

Mr Don Hanson, UK senior partner of Arthur Andersen, cautioned that the dependence on financial clients might prove risky. "We should consider what could replace the financial sector as the main source of revenue," he said. "We need to make sure there will be life after Big Bang."

But he and other senior partners remain optimistic. "We expect our encouraging rate of growth to continue," said Mr Jeffery Bowman of Price Waterhouse.

Mr Eilledge of Ernst & Whinney pointed out that last year's results were boosted by new audit clients such as British Coal, Currys and the Post Office. On the basis of further audit gains including the London Docklands Development Corporation, Nabisco and MFI, he confidently forecast that Ernst & Whinney would continue to grow at the recent rate.

CONTENTS

OVERSEAS NEWS

Britain steps up pressure for end to EEC trade barriers

BY WILLIAM DAWKINS IN BRUSSELS

BRITAIN will try to put severe pressure today on its 11 EEC partners to agree to a package of measures to scrap trade barriers between community member-states.

The community trade ministers will gather in Brussels this morning to start what promises to be a marathon negotiating session over 16 steps towards the creation of a free internal European market.

The list, selected by the UK, covers a disparate but in many cases crucial range of proposals. They include the opening up of public purchasing to other EEC states, the establishment of common standards for telecommunications and information technology, and the protection of micro-circuit design copyright.

Each measure has been blocked by fairly minor objections from at least one member-state. Mr Alan Clark, the British Trade Minister, who will be chairing the meeting, is expected to emphasise that if his ministerial colleagues do not lift their objections during today's debate, they face the prospect of being out-voted next year, when the introduction of the European Single Act will permit more majority voting.

This follows a period of frenetic diplomatic activity by a British Government keen to improve on the disappointing progress it has made as EEC chairman in lifting common market barriers — and painfully aware that today might be the last chance to make headway on the issue before its presidency runs out at the end of the year.

In the past week, Mr Clark, Lord Lucas, a parliamentary under-secretary of state at Britain's Department of Trade and Industry, and a senior EEC official, have visited Bonn, Rome, Copenhagen, Athens and Madrid in a bid to cajole member-states into sacrificing their national objections to today's proposals.

These include 13 points outlined last week by Mrs Margaret Thatcher, the UK Prime Minister, in a letter to EEC heads of government.

If today's meeting fails to make substantial progress, Mrs Thatcher is planning to resume the pressure for agreement at the European Summit in London at the end of this week.

Britain is determined to avoid leaving a tangle of uncompleted tasks for the Belgian presidency to take on at the turn of the year.

Both countries, along with the Netherlands — the previous EEC chairman — have agreed to a rolling programme of 149 internal market decisions by June next year, 95 of them by the end of December.

With just 20 decisions so far under the UK's belt, to add to the 21 made by the Dutch presidency, the programme is well behind schedule.

EEC officials believe there is a good chance of agreement on at least four of the proposals on today's agenda, relating to tougher rules against counterfeit goods, the avoidance of unnecessary chemical experiments, microcircuit copyrights, and simplified pharmaceuticals-testing procedures.

But some of the smaller EEC partners resent what they see as a campaign to bulldoze them into agreements they want to consider at greater length.

Erasmus project abandoned

BY QUENTIN PEEL IN BRUSSELS

A POPULAR plan to promote student exchange between member states of the EEC, intended to bring home the relevance of the Community to ordinary people, has been abandoned in a welter of recriminations in Brussels.

The so-called Erasmus programme – European Community Action Scheme for the Mobility of University Students – was supposed to encourage study across EEC frontiers for as many as 10 per cent of the estimated 6m higher education students by 1992.

On Friday, the proposal was withdrawn by the European Commission, after it became obvious that EEC education ministers were unable to agree on its financing, its duration, or even the legal basis on which it would be carried out.

Mr Manuel Marin, the hot-tempered Spanish commissioner responsible for education policies, suddenly announced at the end of a day-long meeting – and just after a compromise proposal had been tabled by the British minister – that he was not prepared to continue.

The Commission's plan, in line with the exhortation of EEC heads of Government to produce ideas for a "people's Europe," would have spent Ecu 175m ($183m) on travel expenses, cost-of-living allowances and grants for students on exchanges.

It had the enthusiastic support of poorer member states such as Greece, Spain and Portugal.

The amount of money in the programme was opposed by Britain, France and West Germany, and they also wanted it reviewed after a period of time, to ensure it provided balanced mobility between member states.

Kremlin anti-corruption drive

SOVIET leaders have ordered a crackdown on abuses in the country's police force and judiciary as part of a drive by Mr Mikhail Gorbachev, the Soviet leader, to root out corruption and reform Soviet society, Reuter reports from Moscow.

A decree from the policy-making central committee, published yesterday in the Communist Party newspaper Pravda, ordered the country's law and order officials to take immediate measures to end violations of the rights of citizens.

The decree appeared to signal the resumption of an anti-corruption campaign initiated by Mr Yuri Andropov, the former Soviet leader, who sacked Mr Nikolai Shcholokov, the long-serving Interior Minister, in 1982 at the start of a drive to clean up the law.

Describing the crackdown as an inalienable part of social reconstruction – the catch-phrase for Mr Gorbachev's reform drive – the decree said serious deviations by those meant to enforce the law had affected the vital interests of citizens.

It instructed the president of the Supreme Court, the public prosecutor, the ministers of interior and justice and the chief state arbiter to ensure that bodies under their command eliminated abuses and strictly observed the law.

In addition, it said, local elected bodies were to keep watch over the activities of the police and court in their areas to prevent any miscarriage of justice.

Chirac in climbdown over universities

By David Housego in Paris

MR JACQUES CHIRAC, the French Prime Minister, last night offered to modify the Government's controversial university legislation to meet the criticisms of students and university teachers opposed to the Bill.

In a television broadcast, Mr Chirac proposed a week to 15 days of consultation during which the Bill could be amended before being submitted again to the national assembly.

Mr Chirac's proposal came as students prepared to endorse today recommendations by their leaders to go ahead with a huge protest march on Thursday.

The recommendation came despite the Government's decision on Friday to withdraw the legislation from the floor of the national assembly after only five hours of debate and send it back for discussion in committee.

Taking full responsibility himself for the Bill, the Prime Minister said that there had been misunderstandings and mistakes on the Gov[illegible]rnment's behalf.

He off[illegible]red negotiations on all the major [illegible] points in dispute – admission [illegible]edures, entry fees and the[illegible]tion given to university diplomas.

Mr Chirac's broadcast followed a meeting he held with other Cabinet ministers on Saturday to discuss how to handle an issue that was beginning to divide his administration and put strains on "cohabitation" – the difficult exercise of power sharing between the Government and President Francois Mitterrand.

Reflecting the growing belief within the coalition that their problems are in part due to Mr Mitterrand's subtle undermining of the Government in public, Mr Albert Chalandon, the Minister of Justice, said yesterday that cohabitation had perverse and pernicious effects.

It is the first time that a senior minister has publicly criticised cohabitation in terms long voiced by Mr Raymond Barre, the former Prime Minister.

Over the university issue, Mr Chirac faced conflicting pressures from his supporters. Reflecting the views of those on his right wing, the daily Le Figaro warned on Saturday of the dangers of allowing the law to be dictated by street agitation.

On the other hand, the centrists leaders of the UDF – Mr Chirac's coalition partner – have counselled prudence in running against popular opinion.

BRITAIN BACKS HYPERSONIC AIRCRAFT PLAN

Bonn rockets into the space race

BY DAVID MARSH IN BONN

WEST GERMANY is laying plans to forge ahead in the space race of the next century —based on ideas drawn up during the Second World War for a rocket-powered aerosplane to bomb US cities.

An ambitious project to develop the so-called Saenger two-stage space aeroplane has been backed during the last year by DM 2.5m (£884,000) from the Bonn Government and Messerschmitt Boelkow Blohm (MBB), the country's largest aerospace company.

The 11-nation European Space Agency, which co-ordinates Europe's space efforts, is now examining proposals formally submitted last week, for West Germany to pool expertise on Saenger with Britain, which is backing a different futuristic space vehicle, Hotol.

The West German project centres on studies on a hypersonic aircraft the size of a jumbo jet, which would carry piggy-back a second rocket-powered orbiting vehicle. It is based on ideas advanced by Professor Eugen Saenger, the German space pioneer, who in 1942 drew up a design for a rocket-driven aircraft with a top speed of 11,000 miles an hour, capable of carrying 1 tonne of dynamite to New York.

The Saenger plans, pursued independently of work on the V-1 "flying bombs" and V-2 rockets which caused havoc in London and other European cities during the closing months of the war were not realised.

A test facility was established on the Lueneburg Heath in north Germany and destroyed after the war. The heath is now used for training manoeuvres by the British Army.

West Germany's determination over Saenger underlines its general attempt to catch up in aerospace with France, which has dominated the post-war technological partnership between the two countries.

"We are now more self-confident," says a top official in the Technology Ministry in Bonno.

Saenger, which would cost an estimated $12bn (£8.37bn) to bring to fruition over the next 20 years, is technically feasible, says Mr Ernst Hoegenauer, deputy manager of MBB's space systems group in Munich.

Mr Hoegenauer, a veteran of more than 20 years of joint European efforts in space, who worked with Professor Saenger before he died in 1964, says the project should be pursued as a collaborative European programme.

But he has also had talks in the US, with, among others General Electric and the Defence Advanced Projects Research Agency, the Pentagon's long-term research arm.

The idea, for which both Britain and Germany, have promised to pool expertise, has generated suspicion in France. The French national space agency, CNES, has developed ideas for another, less-advanced orbiting transport vehicle, Hermes, planned to fly in the mid to late 1990s.

This is now being backed as a full ESA project, led by the French but with West Germany putting up 30 per cent of the costs of the design phase.

Mr Hoegenauer says Hermes is a stepping stone to the more ambitious Saenger and Hotol projects. Apart from providing much cheaper ways of lifting objects into space, Saenger and Hotol could provide the breakthrough towards establishing hypersonic airliners for earth transport.

Paris nears Norway gas decision

By Max Wilkinson, Resources Editor

THE FRENCH Government is expected to announce tomorrow whether it will cancel its contract for a share in the $60bn (£42bn) purchase of gas from the giant Troll field in the Norwegian sector of the North Sea.

France was demanding a guaranteed share of the contract work, which the Norwegian authorities were unwilling to concede. Troll is the largest gas field in Europe. The International Energy Agency in Paris has said it is of great strategic importance in helping to secure Europe's supplies well into the next century.

France's 40 per cent share in the contract, agreed with a consortium of European gas buyers, was seen as essential if the full project involving the joint development of the Troll and Sleipner fields, and a new pipeline were to go ahead.

The indications last night were that a compromise would be reached, with France agreeing reduced purchases of gas in exchange for rather vague undertakings from Norway to increase cultural and industrial co-operation between the two nations.

The recalcitrant attitude of France has raised the possibility that British Gas will re-open negotiations with Norway as soon as it is securely floated into the private sector.

Italy may face early election

BY JOHN WYLES IN ROME

ITALY MOVED closer towards early elections at the weekend when the leadership of the Republican Party threatened to withdraw from the five-party coalition government next spring.

Claiming that the members of the present government were not able to agree on anything, Mr Giovanni Spadolini, Defence Minister and Republican Party leader, told the party's national council: "I declare to you that the Republican Party is not available (for government after March 1987) unless there is a profound and radical rethink of policies."

Despite holding only 5 per cent of the vote, Republican participation is crucial to the future of any centre-led government.

To the surprise of many observers, both Mr Spadolini and the party's president, Mr Bruno Visentini, heaped much of the blame for current disarray in the coalition on the dominant Christian Democrat Party which is due to take over the premiership from the Socialist Mr Bettino Craxi next March or April.

Traditionally closer to the Christian Democrats than the Socialists, the Republican leadership bitterly accused the CDs of ineffectiveness.

Mr Visentini questioned whether there was any justification for the Socialists handing over the premiership. Mr Spadolini said the CD leadership was trying to "liquidate" the smaller lay parties — the Republicans, Liberals and Social Democrats.

The Republican broadsides are vivid evidence of the pre-electoral atmosphere now gripping Rome. The next general elections are not due until 1988. None of the government and opposition parties want them advanced, but most are increasingly dubious that the post-Craxi government will be able to avert them.

Mr Spadolini's speech was at the same time an attempt to stake out a negotiating price for eventual Republican participation in a CD-led government and to position his party in the event of an uncontrolled crisis leading to elections.

Much of the present political unrest is due to evidence of weakness and disarray among the Christian Democrats themselves.

ITALY'S annual rate of inflation fell below 5 per cent in November for the first time in 18 years. Figures released by the government statistical institute show an annual rate of price increases of 4.5 per cent compared to 5.1 per cent in October and 8.6 per cent in November 1985.

They suggest that the country is just about on track to meet the Government's target of an average rate for the year of 6 per cent.

IG Metall seeks hours cut

THE West German engineering union IG Metall said yesterday it would seek to cut the working week from 38.5 to 35 hours for the same pay in talks with employers next month, Reuter reports.

IG Metall leaders said the 2.7m member union would present these demands today to all employers, including the West German motor industry.

The union brought the industry to a standstill in 1984 with a seven-week strike for a 35-hour week. Finally hours were cut by 90 minutes to 38.5 hours under an 18-month agreement that has now expired.

A senior IG Metall official said this month the union would stage warning strikes if negotiations failed. The union said it would also demand an overtime ceiling of 10 hours a month.

FINANCIAL TIMES

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Argentina ready to reform the public sector

BY TIM COONE IN BUENOS AIRES

ARGENTINA is shortly to introduce public sector reforms aimed at improving efficiency and reducing costs in both central government and state-run enterprises.

The Government has long considered the reforms as a necessary complement to its anti-inflation strategy and its long-term goal of carrying out a structural reform of the economy. Partial finance for the changes is expected to come out of a World Bank structural adjustment loan of $450m (£244.15m).

In a television speech at the weekend, President Raul Alfonsin said the reforms would cover three main areas: a reduction of central government employment, an overhaul of the public sector wage structure and a reorganisation of state-run companies.

Public sector employment is to be reduced by 20 per cent in the next three years. President Alfonsin insisted there would be no compulsory lay-offs. Workers accepting voluntary redundancy would receive a lump sum of Australes 3,500 (£2,071) plue a continuation of salary for between six and 12 months, depending on length of employment.

Unification of salary scalee in the state sector is to be introduced elimineting inter-ministerial differences which have caused many lahour disputes.

At the same time, those at the upper end of the salary scale are to be given hig increases in a move to attract and keep better-trained workers. Smaller adjustments for the lower paid will be used as an incentive to persuede semi-skilled and unskilled employees to accept voluntary redundancy.

Meanwhile, many state-run enterprises are to be put under the control of a new holding company headed by a ten-man management hoard to he drawn primarily from the private sector. The Public Works Minister would absorb about 290,000 employees, a turnover of $7bn a year and "losses of several hundred million dollars per year."

The management board and an overseeing inter-ministerial committee will set planning guidelines for the state sector companies, which in future will be expected to be run on more profitable lines.

Until now there has been little co-ordination between tha state-run enterprises. Management in the past has been dictated more by politics than economics.

President Alfonsin met Mr Saul Ubaldini, heed of the powerful General Confederation of Workers, last Friday in an ettempt to renew talks between the government and unions which broke down earlier this year because of differences over the Government'e ecoonmic policies.

President Alfonsin said later: "I am convinced we are going to begin a new dialogue." But he warned: "It will have some difficult facets and at times will border on conflict." The workers' considerations has organised seven 24-hour general strikes against the Government in its three years in office.

Court gives go-ahead for Bhopal hearings

By John Elliott in New Dehli

TWO YEARS after a lethal gas leak in the central Indian city of Bhopal claimed more than 23,300 lives and disabled between 30,000 and 40,000 people, the Indian Government and Union Carbide last night cleared the way for conrt hearings on compensation claims totalling $3bn (£2.09bn) to begin next month.

The Bhopal District Court ruled that Union Carbide could go ahead with financial restructuring it had been planning for its international operations, having received its assurance that it would maintain nnencumbered assets totalling $3bn. This is the figure that 10 days ego the Government said was the total of compensation claims it was handling collectively for about 520,000 people.

Official and legal delays and wrangles have taken up most of the time since the gas leaked on December 3 1984 from Union Carbide'e pesticides plant, leaving a trail of death and injury in slum areas.

Now the two parties are to file written statements on their counter claims about responsibility for the accident. January 12 has been set as the day when the main legal bearings will begin in Bhopal, possibly lasting for several months.

The Government is claiming against Union Carbide's international parent company in the US. But the company has responded first by saying the accident was caused by an employee's act of sabotage and then by seeking to place the blame on the central Indian Government and thc state government of Madhya Pradesh, of which Bhopal is the capital.

Financial restructuring and asset disposal plans drawn up by Union Carbide to strengthen its base in the wake of its successful defeat last January of a takeover bid from Gaf made the Indian Government suspect that the gronp's international assets would be run down to such an extent that it would not be able to meet compensation awards.

This led the Government first, to ask for an order blocking the company's plans and then to name $3bn as the claims figure. Yesterday in private negotiations in front of the Bhopal court judge, Union Carbide agreed to let two valuers chosen by the judge examine its assets every three months to ensure they have not fallen below the agreed figure.

But the company has stressed that its acceptance of the $3bn figure does not amount to an admission of liability.

● Sikh militants pulled passengers off a bus in Punjab yesterday and shot dead 22 Hindus, Reuter reports from Chandigarh.

Police said the attack was the largest number of deaths in a single terrorist attack in the troubled state.

Tokyo finance deal agreed as Mexican leader flies in

BY DAVID GARDNER IN MEXICO CITY

PRESIDENT Miguel de la Madrid of Mexico arrived in Tokyo yesterday on a state visit sweetened by an agreement last Friday on $1bn (£697m) in project finance to be provided by Japan Eximbank.

The visit is part of a two-week tour of Japan and China designed to increase Mexico's trade and investment flows with the Far East and emphasise that it is a Pacific nation.

Japan is Mexico's second largest trading partner and foreign creditor, after the US, and third largest foreign investor, after the US and West Germany.

Mexico-Japan trade has totalled about $2.5bn a year since 1981 — about a tenth of trade with the US and half the value of Mexico-EEC trade—but with the balance moving from rough equilibrium to a $1bn surplus in Mexico's favour.

Japan imports oil (about 160,000 h/d) and silver from Mexico, to which its main sale is capital goods.

Japanese foreign investors have a strong presence in sectors ranging from cars (Nissan) to tobacco (Nisshoeyiwai), and an increasingly visible presence in tourism. The $100m Hotel Nikko in Mexico City is close to completion and Japanese interests are looking at the possibility of a $200m resort development in Baja California, the peninsula below California.

Japanese commercial banks are owed over $11bn of Mexico's foreign debt, which by the end of this year will exceed $100bn. Last Friday, Mexican Treasury and Jepanese Eximbank officials signed protocols for a further $1bn in project loans for Mexico.

Half is for the completion of an oil pipeline from the Atlantic to the Pacific with storage and loading facilities et both ends; $260m is for the completion of the Sicartsa steel mill complex, also on the Pecific coast; and the balance is to support Mexico's non-oil export drive.

Mexican trade with China has more than donbled this year but still amounts to less than $150m.

CABINET BRIEFED ON TEHRAN LINKS

Israeli arms salesman admits hostage role

BY ANDREW WHITLEY IN JERUSALEM

A KEY Israeli middleman in the shipment of US-made arms to Iran has acknowledged acting as intermediary in successful efforts last year to secure the release of an American hostage being held in Lebanon.

Col Ya'acov Nimrodi, an arms dealer who served as an Israeli military attaché in Tehran during the 1970s, said he and others he did not name had intervened with "certain elements in Tehran." This followed a meeting in Israel with at top government official, at which he had been asked to use his good offices.

As a result of their efforts, the Rev Benjamin Weir was freed in September 1985 by his captors, the pro-Iranian fundamentalist group Islamic Jihad.

In a statement to Ha'aretz, the Israeli daily, Mr Nimrodi said that after the release of the American clergyman he and his associates were requested to stop handling the issue. Who made this request is not specified—but the implication is that it came from the Israeli Government.

The full coalition Cabinet was yesterday briefed for the first time by the "Iran Troika" —Mr Yitzhak Shamir, the Prime Minister, Mr Shimon Peres, Foreign Minister, and Mr Yitzhak Rabin, the Defence Minister — on the country's arms dealings with the Khomeini regime. No details of the discussions were revealed.

But given the hostile public positions adopted in recent days by several senior ministers, the debate is likely to have been highly acrimonious.

Questions will have focused in particular on the allegations that profits from the Iranian arms sales went to fund the US-backed Contra rebels fighting the Nicaraguan Government.

Israeli officials continue to flatly insist that the Government was unaware of any dealings with the Contras. However, yesterday's Ha'aretz quotes an unnamed senior government official as blaming Israeli middlemen for "meddling" in the Swiss bank account set up to handle receipts from the Iranian arms sales.

Mr Eliakim Rubinstein, the Cabinet Secretary, said yesterday he had no idea whether the Nimrodi statement was accurate or not. He repeated that everything Israel had done had been in accordance with requests from the US Government "through authorised spokesmen."

What appears to have provoked the arms dealer into breaking his silence is a combination of the US Justice Department's investigations into the handling of the Iranian arms transactions and, in Jerusalem, continued stonewalling by the Israeli Government on the entire imbroglio.

Mr Nimrodi and another prominent Israeli businessman being linked to the arms affair, Mr Al Schwimmer, are understood to be pressing for an official clarification from Jerusalem on their claim that their part in the transactions ended soon after Mr Peres became Prime Minister in September 1984.

Liaison between the Peres Government and the White House over the arms subterfuge is believed to have subsequently been handled in Jerusalem by Mr Amiram Nir, who held the shadowy post of counter-terrorism adviser to the Prime Minister.

Mr Nir has retained his post under Mr Shamir, who took over the coalition Government in October, but his departure may not be long coming.

Even before the Iranian arms scandal broke in the US, Mr Shamir is known to have wanted to replace Mr Nir with a Likud sympathiser, Mr Benjamin Netanyahu, currently serving as Israel's Ambassador to the UN, in a beefed-up terrorism department within the Prime Minister's Office.

FORMER nuclear technician Mr Mordechai Vanunu (left), accused of espionage and treason for telling a British newspaper Israel was producing atomic weapons, appeared in public yesterday for the first time in two months. Reuter reports from Jerusalem.

Mr Vanunu, 31, appeared under heavy guard at Jerusalem district court for a closed-door hearing to remand him in custody until the end of his trial. The court put off the hearing after his lawyer, Mr Amnon Zichroni, demanded the proceedings take place in public. No new date was set.

S Africa trust aims to tackle black housing backlog

BY ANTHONY ROBINSON IN JOHANNESBURG

SIX MONTHS after the South African government abolished influx control and opted for a policy of "orderly urbanisation," a new housing trust has been created in which government and private business will provide up to R1.2bn to finance cheap housing.

The new trust, called the South African Housing Trust Limited, will be chaired by Dr Fred Du Plessis, chairman of Sanlam, the largest Afrikaner insurance and industrial group.

The government will inject R400m into the trust and will take up 1,000 of the 10,000 one-rand nominal shares with private companies subscribing to the remainder. The trust will issue loan stock through the Johannesburg Stock Exchange.

The scrip will be given "prescribed status," thus qualifying for inclusion in the obligatory deposits required from banks and financial institutions and will be market-related. Both interest and capital repayment will be guaranteed by the state. The intention is to raise at least R800m over the next three years.

The aim of the trust is to finance a largely self-build housing programme for low-income houses for all racial groups, although the bulk of funds is expected to be allocated to blacks who only this year have been granted freehold property rights.

By conservative estimates, the existing backlog in black housing, after decades of governmental refusal to build more black homes in "white" South Africa, is at least 600,000 units.

As part of its unemployment relief programme, the Department of Manpower and Training has trained more than 74,000 unemployed workers in basic building skills over the past 18 months.

The trust is expected to begin by granting bridging loans

Portugal Becomes 21st Country to Select System 12

Belgian City Cuts Over 22,560-Line Local Exchange

More than 100 Exchanges Handed Over in Italy

Advanced System 12 Telephone Exchanges Handed Over in Norway

First System 12 Network Service Center in Operation

Spain Approves System 12

Bavaria Cuts Over First Digital Local Exchange–System 12

China Puts Locally-Produced Exchanges into Service

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In Belgium, some 50 exchanges have been cut over. In Germany, 19.

In fact, System 12 exchanges have already been cut over in 13 countries around the world.

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Opposition figure fails in bid to reach Taipei

By Robert King in Taipei

A LEADING Opposition figure failed in his attempt to return to Taiwan yesterday after the airline on which he had booked his flight refused to allow him to board.

Mr Hsu Hsin-liang, an outspoken critic of the Taiwan Government, has spent the past several years in the US after being convicted in absentia of treason.

The Government has charged Mr Hsu, a former elected official, with dereliction of duty after a riot sparked by allegation of election fraud on the part of Nationalist Government officials erupted in his constituency in 1977.

Mr Hsu is seeking to return to Taiwan during the run-up to December 6 elections for supplementary seats in Parliament and the National Assembly.

Many, both within the ruling Nationalist Party and the newly formed quasi-legal Democratic Progress Party, feared that Mr Hsu's presence during the campaigning and elections might destabilise the process.

Should he land in Taiwan, Government would have no choice but to arrest him or deny him entry. These options could easily spark demonstrations.

Angela Dixon on some unexpected turns during one of the Arab world's largest international events

Dubai in dramatic leap on to the world chess stage

HUGE plywood chess pieces line the streets. Almost overnight, it seemed, Dubai's largest roundabout sprouted a landscape of hills and valleys, covered with instant lawns and petunias.

The event is the 27th Chess Olympiad—possibly the largest sporting occasion, with over 1,000 participants, to be staged in the Arab world. It was also the venue for the election of the next president of the International Chess Federation.

Dubai is no stranger to international sporting events—the annual horse show attracts top riders from all over the world—and it has welcomed the olympiad with open arms, filling the huge hangar-like halls of the trade centre with chess tables and laying on thrice-daily television broadcasts, plus a round-up of the outstanding games every evening.

In return, the tournament has supplied an abundant crop of drama and surprise, including the unusual spectacle of the Soviet team not only drawing in its matches against Yugoslavia and England, but even losing some games. This was in spite of its heavyweight team, which includes world champion Kasparov and the three other top-ranking Soviet players, Karpov, Sokolov and Yusupov.

Another surprise was the unexpected victory of the Spanish over the English team. England had succeeded against all the other strong contenders, and had gained a clear lead by the end of the sixth round. Victory against the Spaniards seemed sure, but the latters' win, with 3½ to England's ½, was, in the words of Nigel Short, "devastating."

Gary Kasparov contemplates his next move

After the match, Tony Miles created Dubai history by declaring on local television that he was going off to get drunk. He later—soberly—admitted: "The Spaniards played brilliantly, and we played badly."

Further drama ensued when the England team lodged a formal complaint against the Spanish team's Russian coach, on the grounds that he had advised a member of the team on a move after a draw had been offered by the English opponent.

With only one day to go, the England team are still among the first three, with the US and Soviet Union. For the first time ever, the Soviets have not had a walkover at this Olympiad.

The organisers have managed this large-scale event with great success and the opening ceremony in particular was a brilliantly staged occasion with spectacular fire works and a chess game played with live chess pieces. There have, however, been criticisms.

There were some red faces when the powerful and respected Shaikh Mohammed bin Rashid al-Maktoum, best known in Britain perhaps as an enthusiastic and knowledgeable racehorse owner, publicly carpeted the organisers. Some of these, he claimed, were seeking publicity for themselves without regard to the interests of the UAE in general and Dubai in particular.

The UAE has some very strong chess players. These include a young Junior World Champion from Dubai, Nasr Ahmed Saeed, and his brother, Saeed Ahmed Saeed, who unaccountably failed to be included in the UAE team. The team did not come anywhere near the top in the tournament results. The Shaikh had some words to say on that subject, too.

Criticism from other quarters came mainly from the hotel industry, which was taken aback at the low rates imposed by the government for room-mates chargeable to the chess teams and delegates. This is at a time of year usually accounted among the busiest for hotels in the Gulf.

Dubai is no stranger to international events and it has welcomed the Olympiad with open arms. In return, the tournament has provided an abundant crop of drama and surprise

One or two hotels said they were glad to make their contribution to the event. Some, however, were not used by the visiting chess teams.

If the outcome of the Olympiad was still unclear right up to the last moment, the result of the International Chess Federation (FIDE) presidential election has been no cliffhanger. The Brazilian candidate, Lincoln Lucena, unexpectedly stepped down at the last moment in favour of his rival—the sitting candidate Florencio Campomanes, in spite of the vigorous lobbying throughout the fortnight by Lucena's supporters.

The fact that Dubai has been the setting for the Chess Congress has been helpful to Mr Campomanes' strong candidacy. Dubai openly declared its support "for," at the onset of the olympiad.

The high attendance of third world delegations was another factor in his favour. Many of these might not have been here but for the generosity of the Dubai Government, which donated airline tickets to an estimated value of $100m (£71m). Most of them were considered likely to give Campomanes their vote.

The ban on Israel participation also gave a boost to Campomanes' hopes, since Israel might have been expected to vote against him, while the consequent protest withdrawal from the event of the Scandinavian teams and others can have only further strengthened his hand.

Although Gary Kasparov openly opposed his re-election, the official Soviet stand was in favour of the Filipino.

One further contest, however, remains. This is the vote which FIDE is expected to take on future policy regarding the exclusion of teams on political grounds. If the vote endorses this policy, it will mean that Israel, among others, may be banned from future Olympiads.

Whatever their feelings on individual countries' politics may be, a number of nations, notably the US, would be unhappy at the application of the principle of exclusion on political grounds. The outcome of the vote on this motion, therefore, could seriously affect the future of international chess and its result is awaited with interest.

New Delhi trade deficit down 18%

By John Elliott in New Delhi

INDIA'S trade deficit fell by 18 per cent to Rs 33.81bn (£1.9bn) in the first six months of the current financial year to the end of September, compared with the same period last year.

This follows a 66 per cent increase in the deficit during the whole of 1985-86 which caused considerable concern about the country's balance of payments problems in the next few years.

But exports have recovered and rose during the first six months this year to Rs 58.57bn, nearly 17 per cent above Rs 50.17bn in the same period last year. Imports rose by only about 1 per cent to Rs 92.39bn from Rs 91.41bn.

During the past few months, the Government has introduced a range of export incentives which the Ministry of Commerce claims are producing results.

● BMW of West Germany has become the latest foreign motor manufacturer to sign a production collaboration with an Indian company. Its partner is Bharat Gears of New Delhi, one of the Raunaq Singh family companies.

They are waiting for the Government to announce a new motor production policy which will determine whether or not their collaborations go ahead.

Police close off central Seoul

By A Special Correspondent

MORE THAN 70,000 riot police closed off central Seoul at the weekend to suppress a demonstration called to support constitutional change in South Korea.

The demonstration had been called by the country's main opposition group, the New Korea Democratic Party (NKDP), to press for the direct election of the president, and to regain the political initiative as a strong challenger to the Government.

But the government of President Chun Doo Hwan went to extraordinary lengths to see that few, if any, could attend the rally.

Taxi drivers were told not to take young people to central Seoul; underground stations in the vicinity of the proposed demonstration site—a schoolground — were closed; and, tear gas was liberally used to break-up groups near the school.

Opposition political leaders were also restrained from attending the demonstration. South Korea's best-known dissidents, Mr Kim Dae Jung and Mr Kim Young Sam, were held under house arrest, while the NKDP's president, Mr Lee Min Woo, and a group of opposition MPs were not permitted to leave the party's headquarters.

The government had warned last week that it would not permit the demonstration to take place. It said that radical and Communist elements would create violence, and it promised tough action. Nearly 2,000 people who tried to attend the rally were detained.

Western diplomats in Seoul said yesterday it was not the government's action which was of greatest concern to them, but that its repercussions could lead to an even greater polarisation of political opinion than already exists in South Korea. This in turn, they said, could lead to a growth in civil unrest.

During the spring, the opposition successfully held rallies in provincial capitals to win the right for South Koreans to sign a petition supporting constitutional change. It had hoped that the latest demonstration would be a turning point in this campaign.

"Though we failed to hold the rally, we will hold one in the near future," Mr Hong Sa Duk, the NKDP's spokesman said: "It would be ridiculous if the government insists on claiming victory."

But Mr Hong's words disguise divisions within the NKDP and the fact that its image has been undermined by a series of incidents during the autumn which the government has been able to use to discredit it with South Korea's growing and conservative middle class.

SHIPPING REPORT

Sharp fall in merchant tonnage

By Kevin Brown, Transport Correspondent

THE SIZE of the world merchant fleet fell by 11.4m gross tons in the year to June 30—nearly three times the previous record.

Llody's Register, the independent London-based ship classification society, said the fall amounted to 2.7 per cent of gross tonnage, reducing the fleet from 416.3m tons to 404.9m tons.

The world fleet has now fallen by 4.6 per cent since 1982, when total tonnage began to decline for the first time since the early 1930s. The previous biggest fall was 3.9m tons in 1984.

The figures reflect the deep recession in the shipping industry, which has led to a sharp fall in orders for new vessels and an increase in scrapping.

In a separate series of figures based on calendar-year returns, Lloyd's Register said the number of ships launched in 1985 was 1,817 totalling 17.2m gross tons, compared with 1,962 launches totalling 17.7m gross tons in 1984.

The number of ships sunk fell from 327, totalling 1.7m gross tons, to 307, totalling just under 1m gross tons. The total tonnage broken up increased, however, from 17.7m gross tons to 22.2m gross tons.

Lloyd's Register said the biggest falls in gross tonnage by national fleet were Norway (6m tons), Liberia (5.5m tons), UK (2.8m tons), and Greece (2.6m tons).

Liberia retained its position as the world's largest fleet with 52.6m tons, followed by Panama with 41.3m tons. The UK remained in eighth position with 11.5m tons.

● Brokers reported an extremely busy week in the tanker market, despite continued attacks on merchant shipping in the Gulf by Iran and Iraq, notably at Larak Island.

Turkish airline may be split into 4 groups

By David Barchard in Ankara

TURKEY'S national airline, THY, may have to be split into four separate companies according to government officials.

THY was the first public corporation to be selected for privatisation by the Turkish government, nearly 18 months ago.

Under the scheme, which is expected to go before the cabinet shortly, THY would be divided into: (1) a passenger carrier retaining the present name; (2) a cargo charter company to be called Anatolian Airways, of which THY would be a part-owner; (3) a ground equipment company; and (4) a catering company.

World Economic Indicators

RETAIL PRICES
(1980=100)

	Oct '86	Sept '86	Aug '86	Oct '85	% change over previous year
US	133.63	133.43	132.98	131.65	+1.5
W. Germany	120.00	120.40	120.20	121.10	−0.9
France	163.20	162.90	162.30	159.80	+2.1
Italy	203.50	202.30	201.70	194.30	+4.7
Netherlands	123.10	122.40	121.80	123.20	−0.1
Belgium	142.69	142.83	142.33	141.47	+0.9
UK	147.29	147.06	146.34	143.00	+3.0
Japan	115.30	115.30	114.80	115.80	−0.4

Source: Eurostat

UK NEWS

Oil price collapse 'cut energy bills by quarter'

BY MAX WILKINSON, RESOURCES EDITOR

THE COLLAPSE of oil prices this year has cut British industry's energy bills by about a quarter, according to the latest official figures published at the weekend.

The saving, which could amount to almost £2bn in a full year, is likely to show up in improved profits and will help to increase the Government's tax revenues next year, when the exchequer will be suffering the full effect of the recent relaxation of public spending controls.

The latest edition of the Government's Energy Trends shows that the major saving for industry has been in the costs of heavy fuel oil which fell by 56 per cent in the second quarter of this year compared with the same period in 1985.

Gas costs fell by only 8 per cent and coal by only 2 per cent, whereas electricity prices rose by 2 per cent in the period.

In the early part of the year, many companies with dual-fired industrial boilers switched from burning gas to take advantage of the sharp drop in prices.

More recently, however, British Gas has been forced to lower its prices in the industrial market to try to recapture those customers which had defected to oil.

At the time of the Autumn Statement earlier this month, Mr Nigel Lawson, the Chancellor of the Exchequer, said that the decision to add £4.7bn to public spending would be offset partly by higher tax receipts from industry and from value-added tax.

The latest Energy Trends give an indication of the size of the benefit from lower fuel prices in industry alone. In the whole of the economy, the benefit will be much wider.

The fall in energy prices in the UK this year has been less rapid than in some other European countries.

Trichem, the consultant which monitors energy prices across Europe, says that heavy fuel oil prices fell by about the same amount in Germany as in the UK in the second quarter of the year compared with a year earlier, but gas prices for industrial consumers fell by 15 per cent, about twice as much as in the UK.

Energy Trends shows that in spite of the collapse in oil prices, Britain increased its own production of crude oil, by 3.1 per cent to 30.9m tonnes (225m barrels).

In the same quarter electricity sales rose 1.1 per cent. However, while coal and oil-fired stations produced 2.6 per cent more electricity, output from nuclear plants fell 2.1 per cent.

Energy Trends November 1986, Department of Energy, Millbank, London SW1.

Exchange will try to ease strain of electronic trading system

BY ALAN CANE

THE stock exchange has set up a task force to ease the strain on its electronic trading system which underpins London's reformed securities markets.

The task force plans to "tune" the Topic viewdata service, which collapsed on the first day of Big Bang last month, and speed up the supply of computer terminals.

However, in spite of the problems, market-makers and broker-dealers appear to be quickly adapting to the new trading methods. Firms have vacated the old stock exchange floor, where dealing was carried out face-to-face, much sooner than was expected, and many are prepared to make large deals using the electronic information.

One of the first jobs of the task force, set up by Mr George Hayter, head of information systems at the exchange, is to cut out bottlenecks in the overstretched Topic system, which reaches operating peaks each day of almost 90 per cent of its capacity.

Mr Hayter says that operating at such high levels of demand "is still making us uncomfortable," although tightening the system's design and improving programming quality should cut peak-loading by about 50 per cent before Christmas.

The backlog of several hundred orders for terminals is expected to take longer to sort out, and the exchange is unable to give delivery dates. Mr Hayter hopes the problem will be resolved by March or April next year, but this depends on the production of new hardware and software by Modcomp, the US computer supplier.

Chinese welcome building society

By Hugo Dixon

IT IS pure chance that "Halifa" means "your prosperity" in one of China's many dialects. However, nothing else was being left to chance at yesterday's opening of the first multilingual Chinese building society – a Halifax Building Society agency in London's Chinatown.

The proceedings began with a ferocious golden-scaled dragon swallowing a cabbage – a traditional Chinese good luck ritual – and ended with everybody drinking "prosperity-punch."

In the middle, the assembled company had the good fortune to be treated to no less than two speeches from Mr John Heddle, the MP for mid-Staffordshire and one of the vice-presidents of the Building Societies Association.

In the first speech, in Mandarin, he said: "Long live John Man (the manager of the new Halifax branch); long live the Halifax Building Society; long live China."

In the second speech, in Cantonese, he said helping Chinese people buy a house in England was an excellent way of improving international relations.

Mr Heddle also said it was important that other building societies learn from the Halifax's example and open bilingual branches. It would then be easier for ethnic minorities to become homeowners.

Apart from being bilingual, the new Halifax is distinguished from other building societies in two ways: it is open on Sundays and it shares its premises with a Chinese dentist, a solicitor, an accountant and an insurance broker.

Britain to decide on joining European mini space shuttle

BY PETER MARSH

BRITAIN is expected to announce today whether it is to back the initial design phase of a joint European plan to build Hermes, a mini space shuttle proposed by France that promises to carry people and materials to and from orbit.

While France and West Germany have already declared their support for the scheme, organised by the 11-nation European Space Agency (ESA), Britain has left a decision to the last moment. The deadline for informing the agency about participation in the design phase was last night.

The decision is politically sensitive because not joining in the design of Hermes – a £25m project which will take until next summer, after which the European countries will have to decide formally whether to go ahead and build the vehicle – would send a signal to Britain's European partners that the country has doubts about the direction of European space policy.

UK ministers were due to decide at the weekend on whether to back Hermes. It had been expected that Britain would opt for a fairly small share of the design programme, putting up about 6 per cent of the cash, compared with the 43 per cent proposed by France and 30 per cent which is West Germany's likely contribution.

Although Hermes, a small reusable vehicle that would enter orbit on top of an Ariane rocket, is still only at the design phase, backing for the project from other countries is such that full-scale development is regarded as a certainty.

Should Britain express doubts about the project now, the country would be unlikely to take much of a stake in constructing the vehicle.

Officials in the British National Space Centre think that the Hermes project has merit, but they fear that it might put too much pressure on ESA's annual budget, which is running at about £800m a year and is due to rise to some £1.2bn by 1990.

Early plans for Hermes put its development costs at about £1.5bn. But UK officials fear the costs could double by the time development is finished in the mid-1990s.

Another reason for Britain's delay over the Hermes decision is that officials think funding of the vehicle could hold up plans to start, under the ESA auspices, a UK-inspired project to build Hotol, a radically new space launcher.

Unlike Hermes, which would require a conventional rocket to take it into space, Hotol, which is short for horizontal take off and landing, promises to leave the earth from a runway, so reducing the cost of going into space.

Mr Geoffrey Pattie, the Minister of State for Industry and Information Technology, whose responsibilities include space technology, has argued that rather than develop Hermes, a better option for Europe might be to jump straight to the development of Hotol. The latter, the design of which is still at an early stage, could be flying by early next century and cost £4bn to £5bn to develop.

The UK proposal that Hermes could be sidestepped in favour of Hotol has been disdainfully received in France. Mr Frederic d'Allest, director general of the French national space agency (CNES), called the proposal "idealistic" and said it would be dangerous to proceed with such a risky scheme without building Hermes first.

Balance of payments warning

BY MICHAEL PROWSE

BRITAIN might need to consider some combination of exchange controls, import controls or tax-induced repatriation of overseas financial assets later in this decade, says Greenwell Montagu the UK securities house, in a gloomy assessment of balance of payments trends.

Such extreme measures, however, would need to be contemplated only if a combination of higher interest rates and a lower exchange rate failed to generate sufficient capital inflows to offset sizeable current account deficits and a strong underlying demand by UK residents for foreign assets.

The report's authors, Mr Robert Thomas and Mr Ray Richardson, in common with many other forecasters, argue that the UK's current account is likely to move into deficit in 1987 for the first time since 1979. It will then be necessary for Britain to earn a surplus on its capital account, in order that the balance of payments balance.

This, they argue, will be difficult. The abolition of exchange controls in 1979 did not result in a once-for-all outflow of capital as investors sought to diversify their portfolios. Instead there has been a strong and continuing outflow of capital on both the portfolio and direct investment accounts. The total outflow in 1985 was £6.5bn, compared with an average annual outflow since 1980 of £5.4bn.

Plans for export guarantee insurance

By Peter Montagnon

THE Government's Export Credits Guarantee Department is considering several new types of insurance schemes for exporters that will help it to compete with the alternative private sector insurance market.

The schemes are still only at an outline consideration stage, but if adopted they could help stem the decline in ECGD's share of the British export insurance market as well as facilitate exports to developing countries.

ECGD confirmed at the weekend that a number of schemes were under consideration by a new product development team set up earlier in the year. "We are now looking very seriously at the way in which we meet the needs of our customers," it said.

Bankers involved in export finance say that three main ideas are now being examined. They are:

- An insurance scheme for bank letters of credit which would operate in cases where lending banks have already filled their internal lending limits for a particular country or firm. This would allow loans in support of British exports to continue, although ways would have to be found for ECGD and the lending bank to share the risk.
- A scheme that would allow ECGD to continue cover for established importers in countries where it was withdrawing fresh cover. This "commitment cover" would mean that trade with long-standing customers of UK exporters would continue to be covered in such circumstances although no new customers would be covered.
- A scheme that would allow exporters to borrow funds to finance sales abroad without having to set aside reserves in their balance sheet against losses arising from default by the customer who bought them.

ECGD's finances have suffered in recent years under the impact of the developing country debt crisis, resulting in pressure from the Government to make its operation more commercially-orientated. But as the traditional project lending markets in the developing world have dried up it has also suffered a fall in business which the new measures would seek to correct.

UK NEWS

Channel 4 considers going it alone

By Raymond Snoddy

CHANNEL FOUR is expected to keep open the option of independence from Independent Television (ITV) when it decides its future structure next month.

Only two board members, Mr Edmund Dell, chairman, and Lord Blake, are unequivocally supporting a declaration now that the channel should eventually sell its own air time rather than receive a percentage of total ITV advertising revenue.

But support is growing to keep open the independence option – recommended by the Peacock committee on the financing of British broadcasting – in case the broadcasting environment changes dramatically.

The Independent Broadcasting Authority (IBA) earlier this year asked Channel 4, its wholly owned subsidiary, to reject the Peacock option.

Instead the channel asked Professor Alan Budd of the London Business School to study the financial viability of independence. The board now faces two conflicting views of its future, one from Prof Budd and a second, more pessimistic, from Coopers and Lybrand, its auditors.

Prof Budd believes that national advertising revenue will show real growth of 5 per cent a year and that Channel 4 could increase its advertising rates by selling its own air time.

By 1997, Prof Budd believes, Channel 4 could have an annual surplus of £32m on revenue of £286m. Coopers sees 3 per cent real growth in advertising and warns that the channel could have a deficit of £9m on revenue of £206m in the same year. The report is to be published on Wednesday.

Prof Budd is critical of the selling methods of the ITV companies and says that at present "there may seem little point in rushing around with a vigorous sales effort when the extra revenue is so highly taxed."

At present Channel 4 gets 10.9 per cent of total net advertising revenue. Prof Budd believes that it could prosper as an independent organisation if it captured 14.5 per cent of net advertising revenue.

Coopers warns that independence would increase Channel 4's risks if the economic climate took a downturn. It also says the Budd study underestimates the likely size of the IBA transmitter rental and takes no account of who will pay for the Welsh fourth channel which at present costs £31.9m and has revenues of £2.3m.

The auditors say Prof Budd also took no account of the cost of capital needs totalling £125m which would produce a revenue cost of £6m a year.

Raymond Snoddy reports on direct broadcasting by satellite

DBS poised for lift-off

DR JOHN FORREST, the recently appointed director of engineering at the Independent Broadcasting Authority (IBA), has a clear vision of the importance of Britain's direct broadcasting by satellite (DBS) project.

"It is one of the most exciting and advanced projects in satellite broadcasting history," he says.

And after spending two full days last week helping to interview the five consortia applying for the franchise to run three new channels of national television, he believes there is the expertise and resources to make it work.

"The whole British electronics industry has been waiting for a green light and a clear decision on the way ahead. On that basis the industry can respond," said Dr Forrest, former technical director of GEC-Marconi.

The IBA has also been emphysising the opportunity DBS offers to move to larger television screens with higher definition pictures.

"I think the whole situation is going to get highly competitive with more and more channels to watch. The public is looking for something new from television and that new aspect is large screens and stereo," says Dr Forrest.

From the beginning the DBS picture is likely to be better quality than existing broadcasting. And Dr Forrest foresees the possibility of introducing progressively larger screens and sharper pictures in an evolutionary way every few years.

"Potentially there is a tremendous opportunity for UK industry there," he says.

After more than five years of talking and disappointment the IBA is likely to give the "green light" to British DBS later this week by awarding the franchise for the world's first wholly private sector DBS project.

The French and West German DBS satellites, expected to be launched within a year, have received large government subsidies and at present do not to use sophisticated technical standards which could lead to higher definition pictures.

In Britain, if all goes according to plan, sometime in 1990 a high-power satellite 36,000km above the equator will begin broadcasting three channels of television direct to dish aerials half a metre in diameter on individual homes and to those allaready hooked up to modern cable television networks.

Ironically the decision will come in the month when the BBC should have been switching on its two channels of DBS, first announced more than four years ago. Instead, the BBC decided it was too risky to go ahead, failed to sign the final agreement to build the satellites and is now being sued for £57m by GEC and British Aerospace for work allegedly carried out before the project was aborted.

This time round, commercial organisations such as Lonrho, News International, Virgin, Robert Holmes á Court's Bell Group and Merchant bankers Robert Fleming are all vying for the right to invest in a project some believe could require as much as £700m for 15 years.

The only thing that is certain is that when the winner of the franchise is announced this month that will only be the beginning of an extraordinarily complex project which comes with no guarantee of success. At least three very different problems will have to be solved if DBS is going to be anything other than a licence to lose money on an unprecedented scale.

- The DBS satellites will have to be successfully launched and give a reliable service.
- The receiving equipment on the ground will have to be available in time and at a price the consumer will be prepared to buy or rent.
- The programmes will have to be of high enough quality to persuade people not just to get the receiving equipment, but in the case of all but one of the applicants pay a monthly subscription to supplement advertising funded programmes.

The present chaos in the international space launching business caused by the US Shuttle disaster and the faults in the European Ariane launch rocket may have eased by the time Britain's DBS satellites are ready to go.

This week the European Space Agency is expected to confirm findings that the problems of the Ariane rocket have been caused by a flaw in a single component and that flights will resume in the spring. The electronics industry is confident it can provide the receiving equipment on time.

"We have absolutely no doubt about it. We have constantly criticised the broadcasters and the authorities for being so lethargic," says Mr Douglas Topping, technical director of Thorn EMI Ferguson.

Mr Richard King, managing director of Cambridge Electronic Industries, a member of the DBL consortium also says he has no doubt that the technology is there. He believes the receiving equipment will start at around £500 and that the usual rule of thumb of consumer electronics should apply – a 25 per cent price fall each time volume doubles.

All the applicants have come up with what they claim are unique and exciting programme schedules. In fact most plan permutations of entertainment, films and news and live events. The money available to spend on programmes will be substantially less than normal broadcast television. Independent Television's total revenue, for example, this year will be about £1.2bn. Yet some applicants are planning to spend less than £50m a year on programmes for three new channels.

Mr Patrick Whitten, managing director of CIT Research, leading new media consultants, worries about the franchise winner. Mr Whitten has a track record of taking a "realistic" view of the speed with which cable and satellite services will develop and so far he has not been proved wrong.

For the DBS project to be viable in the longer term, be believes it will need to attract 10 per cent of homes, 2m, within five years giving a reasonable chance that this could rise from 15 to 20 per cent within 10 years.

DBS CONSORTIA

BSB: Amstrad Consumer Electronics, Anglia Television, Granada Television, Pearson (publisher of the Financial Times) and Virgin Group.
DBS UK: Carlton Communications, Columbia Pictures International, Dixons, Hambros Bank, London Weekend Television, Robert Fleming and Saatchi and Saatchi.
DBL: British and Commonwealth Shipping, Cambridge Electronic Industries, Electronic Rentals, Ferranti, Reed International, Sears, News International, and Mr John Jackson, the consortium chairman.
NBS: Bell Group and Mr James Lee.
SatUK: Bond Corporation, Lonrho, Trillion, Celtic Films and Mr Jimmy Hartley, media consultant.

Sales warning after oil pipeline leak

BY STEFAN WAGSTYL

OCCIDENTAL PETROLEUM has issued a warning that it might be forced to suspend sales of oil from its Flotta terminal near the Orkney Islands in northern Scotland following a leak in an undersea pipeline.

The company said it had declared "*force majeure*" on contracts as a precautionary measure while engineers prepared to repair the leak which has led to the shutdown of the Piper, Claymore and Tartan oilfields in the North Sea.

Occidental said yesterday it was too early to say if shipments would be interrupted or for how long. Tankers were currently being loaded at Flotta from stocks.

The *force majeure* announcement was necessary for legal reasons, said the company.

The three fields together produce about 300,000 barrels a day – about one tenth of UK output. On Friday, the news brought some unease to the oil market where the price of Brent crude, the benchmark grade, rose by about 20 cents to \$14.70 a barrel.

The leak, which caused a large oil slick which is now being dispersed, has been traced to a cracked weld at the point where the Claymore pipe is connected to the main pipeline between Piper and Flotta. The pipes are 380 feet below the surface.

UK NEWS

Importer of Japanese vehicles in receivership

BY KENNETH GOODING, MOTOR INDUSTRY CORRESPONDENT

THE privately owned company which imports Isuzu vehicles from Japan has been placed in the hands of a receiver by its bankers, London and Continental.

The receiver, Mr Bill Ratford of accountants Peat, Marwick Mitchell, said the deficiency was likely "to run into many millions."

He suggested that Isuzu Cars (Great Britain) was a victim of the 25 per cent rise in the value of the Japanese yen in the past year. The company had also been too optimistic when setting sales targets.

Mr Ratford hopes to sell the company as a going concern and will be advertising for potential buyers this week.

Isuzu GB was set up by directors of Follett, which has Porsche and Jaguar sports car dealerships in London. It was kept separate from the Follett company.

Isuzu GB is based at Ashford, Kent, and employs about 40. It started selling Isuzu's Piazza Turbo in February through about 20 dealers.

The company is believed to have been allocated 1,800 Piazzas for 1986 under the terms of the voluntary restrictions which limit imports of Japanese cars to the UK. Sales are understood to have been well below that, in spite of heavy spending on advertising and setting up a dealer network.

The Piazza was criticised for being a relatively old design. It was first sold in Japan in 1981 and is based on a study completed by Ital Design in Italy as long ago as 1979.

Priced at £12,850, the Piazza is competing with much more modern Japanese sports cars such as the Honda Prelude EX (£12,500) and the Toyota Celica (£13,000).

Next year Isuzu GB was to have started sales of the Isuzu Trooper, a four-wheel-drive vehicle which competes with the Rover Group's Land-Rover.

Isuzu GB indicated recently that it hoped for its import allocation in 1987 to be lifted from 1,800 to 2,000 to be split equally between the Piazza and the Trooper.

It came as something of a surprise to the UK industry that Isuzu GB was to import the Trooper, which is sold in continental markets by General Motors, the US group which owns Opel and Vauxhall in Europe and 39 per cent of Isuzu in Japan.

British Gas plan cuts cash calls

By Richard Tomkins

THE impending flotation of British Gas appears to have discouraged other companies from trying to raise cash on the stock market, according to new issue statistics from Samuel Montagu, the merchant bank.

The figures show that new money raised through the issue of listed securities totalled £729m in November – a sharp fall from the £2.5bn of October and well below the £884m of November last year.

The October figure was boosted by the TSB flotation, worth £1.5bn, but November's figure also compares badly with the £2.2bn raised in September. This suggests that companies are nervous in attempting to compete for cash at a time when investors are holding back their funds in readiness for Britain's biggest stock market flotation this week.

British companies raised £624m on the domestic market during the month. The biggest single sum was the £118m raised by Redland through a rights issue.

Thirteen other companies made rights issues totalling £141m, but only three issues amounted to more than £20m: those from Regalian Properties (£37m), British Benzol (£29m) and John Waddington (£23m).

UK software holds its ground overseas

BY DAVID THOMAS

THE BRITISH computer software industry has been holding its own in world markets, an official report commissioned by the Department of Trade and Industry (DTI) is likely to say.

The report will contain significantly different conclusions to those of a study completed in June by the Advisory Council for Applied Research and Development (Acard), a Cabinet Office body, which caused a storm in the British software industry.

The Acard report listed numerous apparent weaknesses in the British industry and argued that, unless it competed more vigorously in world markets, only companies supported by the Ministry of Defence would survive within 10 years.

However, statistical research carried out for the new report, which has been written by Coopers & Lybrand, suggests that the Acard study significantly overstated the weaknesses of British software.

The Coopers & Lybrand report is likely to show that the main British software companies have not been losing their share of world markets and that a high proportion of their revenues are derived from overseas sales.

The final details of the report, which is now likely to be published in the new year, are still under discussion between the DTI and Coopers & Lybrand.

However, it will probably give some support to the idea, long argued by the British industry, that British companies are handicapped compared with their international competitors by the failure of the British public sector to contract out much computer work to private companies.

At the same time, it will note that central government has markedly increased its use of private companies for computer work in recent years.

The Coopers & Lybrand report will probably say that growth in the US software market is likely to slow down, implying that European software companies are due for even fiercer competition from US companies.

This might be seen by some people as a particular problem for the UK industry because of its fragmented nature, a subject on which Coopers & Lybrand has produced background reports. The British industry has been thought at a disadvantage because it has relatively few large companies compared with those of the American and French industries.

However, the final version of the report is unlikely to contain any recommendations of the rationalisation of the British industry or on what to do if takeovers of British software companies are mounted from the US, because such recommendations would fall foul of the Government's commitment not to intervene in industry.

Tarmac's target is 10% of new homes

By Joan Gray, Construction Correspondent

TARMAC is aiming to capture 10 per cent of the market for new homes in Britain and to be building 16,000 houses a year by 1990.

The company is already vying with George Wimpey to be Britain's biggest housebuilder, and its latest target is far in excess of that announced by any other company.

Tarmac expects to build and sell between 10,300 and 10,400 houses this year, following 9,163 completions in 1985. It is gearing up to build at least 11,000 in 1987.

George Wimpey – current leading housebuilder-built 9,743 houses last year and is likely to complete 10,750 this year.

Last year's number one – Barratt Developments, with a total of 10,300 completions in 1985 – has radically changed its strategy, and dropped out of the volume race. It has moved up-market instead and plans to complete only 8,500, but far more luxurious, homes next year.

"It's not our corporate objective to be Britain's number one housebuilder because that would be out of character with Tarmac," said chief executive Mr Eric Pountain. "But we do want to build 10 per cent of the new houses in the UK and if that makes us number one so be it."

Tarmac is very much the dark horse of the housebuilding industry. Unlike Barratt and Wimpey, which have catchy nationwide advertising campaigns and national identities, Tarmac has kept a deliberately low profile.

It consists of 20 separate small housing subsidiaries – the largest, McLean's, where Mr Pountain started, builds only 750 houses a year – all selling under different names and with different indentities.

"And we won't go national on it because it's a very local business," said Mr Pountain. "McLean's really means something in Wolverhampton and the managers live in the community and advertise in the community and build what is right for their community."

Housebuilding is already Tarmac's second most profitable activity. It earned £34.7m profit on £300m turnover last year, compared to the mainstream quarrying business's £88m profit on £600m turnover.

With its houses now selling at an average £40,000 each, a turnover well in excess of £400m is predicted for 1986; and in a year which has seen house prices increase at four times the rate of inflation an incrased level of profitability would be unsurprising.

Housebuilding is not just highly profitable. Its other attraction, explains Mr Pountain, is that, unlike quarrying, "It's the only really big business in the group we can continue to grow organically without buying companies and people."

Denying persistent rumours that he is on the acquisition trail, he emphasises that "we want to keep expanding from within and don't want to buy any more housebuilding companies.

"We would like to see each of our 20 companies building 750 houses each, and all staffed independently so you avoid the problems of quality control of a very big company."

WORLD TRADE NEWS
GLOBAL COMMENT DAILY IN THE FT

Foreigners confound expectations

BY PHILIP BASSET, LABOUR EDITOR

FOREIGN-OWNED companies in the UK feature some significantly different industrial relations practices to indigenous companies – but some practices confound traditional British expectations of how foreign companies operate.

That is a conclusion drawn from findings on the industrial relations practices of foreign-owned companies in the new Workplace Industrial Relations Survey, jointly funded by the Department of Employment, two other official agencies and a private sector research institution.

Such companies, representing about 7 per cent of total employment, were more likely to have made severe workforce reductions in 1980–84 than indigenous companies, less likely to have kept their employment constant, and equally as likely to have grown in employment.

They were more likely to employ personnel specialists to manage a given number of employees and in general they had less complex bargaining units with a higher proportion having only a single bargaining unit to cover manual workers. Plant bargaining was very much more important than for indigenous companies, especially for non-manual workers.

Foreign-owned companies were more likely than UK companies to have made initiatives on employee involvement, and were "noticeably more forthcoming," according to the authors, with information about the financial position of the establishment – "a fairly widespread difference between foreign-owned and indigenous workplaces."

However, against widely-held belief, the survey found that union recognition in such companies grew: 45 per cent recognised manual trade unions in 1980, and 54 per cent did so in 1984, principally because a greater proportion had manual trade union members present as employees.

Similarly unusual was its findings on the closed shop. In 1980, foreign-owned companies were marginally less likely than their UK counterparts to have a closed shop, in 1984 they were more likely to do so, with 23 per cent of foreign-owned companies featuring one.

MANAGEMENT

EDITED BY CHRISTOPHER LORENZ

Morgan Guaranty

The noble hustlers of Wall Street

BY DAVID LASCELLES

(L to r) Lewis Preston, Dennis Weatherstone and Alfred Vinton

THE IVORY coloured carpet is spotless, the offices look like English drawing rooms, the panelling shines. All is quiet but for a conversation beyond an open door.

This scene is the executive suite of J. P. Morgan, parent of Morgan Guaranty Trust. And as befits the image of America's premier commercial bank, it is hushed, unhurried, and positively reeks of quality.

Morgan Guaranty is in a class by itself in the banking world. Though founded by one of Wall Street's more notorious wheeler dealers, the name has come to be synonymous with all the noblest qualities to which bankers aspire: soundness, discretion, intelligence, and a client list that is the corporate equivalent of the Social Register.

Perhaps the most striking thing about Morgan is that its competitors, always quick to pick holes in each other, usually have little but praise for its achievements. "Add it all up and it's awesome," says one of them, with generosity rarely heard on Wall Street.

Many of Morgan's virtues are plain for all to see. Though not the largest US bank (it ranks number five), it is the only one which commands the prized triple A rating in the credit markets—such is the strength of its balance sheet and trading record. With its high reputation, it can thrive by catering to only 600 of the world's top banking customers as close clients (though it deals with thousands more in the course of its everyday business) while its competitors cast their nets far and wide, and even have to stoop to provide banking services to millions of ordinary people.

But in many respects, these are qualities which other banks could also achieve if they only set out to emulate Morgan—as another large commercial bank, Bankers Trust, has in fact done. And while Morgan may put on classy airs, it knows how to use its elbows when fighting for deals. "They do it in a gentlemanly way, but they bustle like everybody else," says a competitor.

The special Morgan qualities which others find harder to nurture are far-sightedness, which has consistently put it at the forefront of trends, and a high level of cohesion within its ranks, the famous Morgan culture.

Morgan is, unusually, run by a "corporate office"—the four top officers who inhabit those comfortable drawing rooms and who consist of Lewis Preston, the bank's 60-year-old chairman, Robert Lindsay, the president, Dennis Weatherstone, chairman of the executive committee, and John Ruffle, the vice-chairman. (The number will fall to three in January when Lindsay retires, to be succeeded by Weatherstone, a 55-year-old Englishman, who will thus move into succession for the chairmanship of the bank.)

The office, says Preston, "is a throwback to the old partnership which founded the bank." Throwback or not, it allows the key men to keep abreast of everything that is going on. Each man has primary responsibility for some major activity and acts as a back-up for one of the activities covered by another. "We share our perspectives. We don't like to be surprised," says Preston, who used to be in the marines.

Largely because of the strong consensus at the top, Morgan has been able to react faster and more radically than any other US bank to the changes that have recently reshaped the world banking business—particularly the evaporation of the market for big company and country loans, once Morgan's bread and butter, and its replacement by investment banking: providing sophisticated financial advice and arranging complex securities-based financial deals.

Earlier this year, Morgan effectively transformed itself into a merchant bank by merging its lending business with its capital markets services to form a new Corporate Finance Group. Apart from highlighting the decline of what was once the bank's most basic business, the reorganisation was supposed to equip Morgan to handle the whole gamut of investment banking products.

The trend towards securities finance was one it had been following carefully. In London, it has become one of the largest issue managers in the Euromarkets, and a dealer in gilt-edged stock; a move into equities is now planned. In other countries it has gone into the securities underwriting and distribution business. In some cases this has meant closing down conventional branches where they are no longer needed.

In Tokyo, Morgan has joined the line of banks seeking a licence to deal in securities. It is also one of the few foreign banks permitted to engage in trust banking in Japan. Even in the US, where banks are still prohibited by law from dealing in corporate securities, Morgan is selling whatever investment banking services it legitimately can, and it has applied to the Federal Reserve Board for permission to deal in a wider range of securities (see box).

Instead of the traditional account officer, Morgan now allocates teams of individuals to each of its big clients. Each team contains whatever skills Morgan thinks that client will need: capital markets, planning, mergers and acquisitions, etc. Structurally, this means that Morgan is organised less along geographical than industrial lines where knowledge of types of markets and the companies that operate in them is the key. These changes have been backed up by heavy investment in new technology, including a custom-built $210m communications, processing and accounting centre in Delaware.

"We worry terribly whether we're communicating the strategy and managing the change properly," says Preston, who claims that Morgan is not an American so much as an "international bank." A third of its officers are non-American, and a stint abroad is "de rigueur" for high flyers.

Morgan has an advantage, of course, in trying to get its staff to pull together; with only 14,000 of them it is tiny compared with the likes of Chase and Citicorp with many times that number. But Morgan-watchers say the bank also has the closest-knit corporate culture of the large US banks.

"We attach a lot of importance to communication and co-operation," says Weatherstone. He says that while Morgan pays its staff according to the nature of their work and rewards merit, "we don't want to get people overly motivated to do transactions if that means they co-operate less with their colleagues and customers."

The stain on that culture is the recent case of Antonio Gebauer who admitted plundering millions of dollars from customers' accounts. Preston says bluntly: "It was a betrayal."

Morgan's aura of quality is carefully nurtured by the bank itself, of course, and it is partly intended to conceal some of the weaknesses behind that impressive facade.

The irony in Morgan's preeminent position is that it is also the most vulnerable. Its most obvious liability is its dependence on a narrow market. Although it has reached swiftly to the changing habits of its prize customers, the new strategy was, in one sense, an act of desperation since Morgan must hold its clientele or die.

Its chosen market may be high grade, but it is also the most competitive, and the one where longstanding relationships between bank and client are under the greatest pressure. Morgan does its best to protect its relationships by offering advisory services which are not dependent on transactions, or by arranging complex deals which require a lot of personal contact. But one senses it is more worried by this threat than it is prepared to admit.

The narrowness of Morgan's business also explains the sharpness of its attacks on US bank regulation, specifically the Glass-Steagall Act which prevents it developing a fully-fledged corporate finance business in its *home market*.

Preston admits: "At least for the moment, we are a hybrid, and will remain so until we get some legislative relief." That relief may be a long time coming, especially after the recent Ivan Boesky insider trading scandal which has reinforced arguments that securities are the last thing a bank should be allowed to do. Preston has threatened in the past to give up Morgan's banking licence in order to escape banking regulation, but that was more for dramatic effect. "That option is not really attractive because a significant part of our business still comes from banking and deposits."

Morgan's lack of a broad retail customer base could be another liability in a volatile banking world. Continental Illinois arguably went under because it was overdependent on fickle wholesale money, while Bank of America may survive thanks to thousands of loyal personal account-holders. Morgan is careful to counterbalance this danger by running an extremely conservative balance sheet and keeping its capital ratios among the *highest* in the land.

Being top bank also means Morgan has only one way to go in the rankings.

"When you recognise you are in a vulnerable position you direct all your attention to getting from A to B," says Fred Vinton, vice-chairman of Morgan Guaranty Ltd, its London-based capital markets arm. "There's nothing magic about this business. We plug away at it."

Morgan certainly seems to be getting to B. Thomas Hanley, the banking analyst at Salomon Brothers, rated Morgan as the top US bank this year based on profitability, credit quality, capital, productivity and liquidity. "It's very impressive. But it's also sustainable," he says. "They have an ability to anticipate events greater than anybody else, and then to structure themselves in anticipation."

Previous articles in this series were published on September 8, 22, October 6, November 3 and 17.

DESPITE its patrician image, Morgan is a hardy campaigner for reform of US banking law, particularly the Glass-Steagall Act which bars banks from underwriting corporate securities.

In order to overcome the section which says that banks may not own companies "primarily engaged" in the proscribed securities business, Morgan has set one up that would be only "partially" engaged in it. J. P. Morgan Securities Inc. has $250m in capital and already includes the bank's money market operations and Treasury bond dealership. From January it will also have the municipal bond and public mortgage-backed securities operations. All these activities are permitted to banks under US law.

The next step is to obtain Federal Reserve Board permission to include private mortgage-backed securities, municipal revenue bonds and commercial paper, which fall into a grey regulatory area. Morgan filed its request in August 1985 and is hoping for the go-ahead by the end of this year. If approved, these activities would constitute a minor part of the subsidiary's operations, and fulfil the requirement that Morgan was only "partially" engaged in them. To insulate the bank from any losses it might sustain, the subsidiary carries no debt guarantee from its parent.

Morgan has deliberately held back from asking for the right to deal in corporate securities through the new company, knowing that would be impossible as the law currently stands. But it is hoping to be allowed to start a stockbroking service through which it could execute orders for equity stocks on the floor of the New York Stock Exchange, and advise investors. Morgan is already a major factor in the equities market through its investment division which manages some $50bn of funds and conducts extensive stock research.

The key question, according to David Fisher, the president of the subsidiary, is where the Fed will draw the line on "primarily engaged." "Some banks think it could be 49 per cent. We think it will be lower."

Some people have seen in the new company the seeds of a new Morgan Stanley, the investment banking arm of the J. P. Morgan banking empire which had to be split off when the Glass-Steagall Act came into force in the 1930s. But its prospects will be limited until the Act is changed.

Management abstracts

International commerce with verbal savoir faire. W. K. Weber in Business Marketing (US), May 1986 (4 pages)

An amusing piece on gaffes that can be made in translation or interpretation at international conferences or in letters. Plenty of brief examples, presents advice on how to prepare for a multilanguage conference, and what to look for in recruiting translators and interpreters.

Confronting alcoholism through team evaluation. M. R. Edwards and J. R. Sproull in Business Horizons (US), May/June 1986 (6 pages)

Examines disincentives that inhibit individual supervisors from identifying alcoholism in the work force, such as fear of *confrontation, difficulty of documentation*, and fear of being blamed; finds there are some (but no very strong) incentives for action, but contends that team evaluation methods of performance appraisal can be more successful.

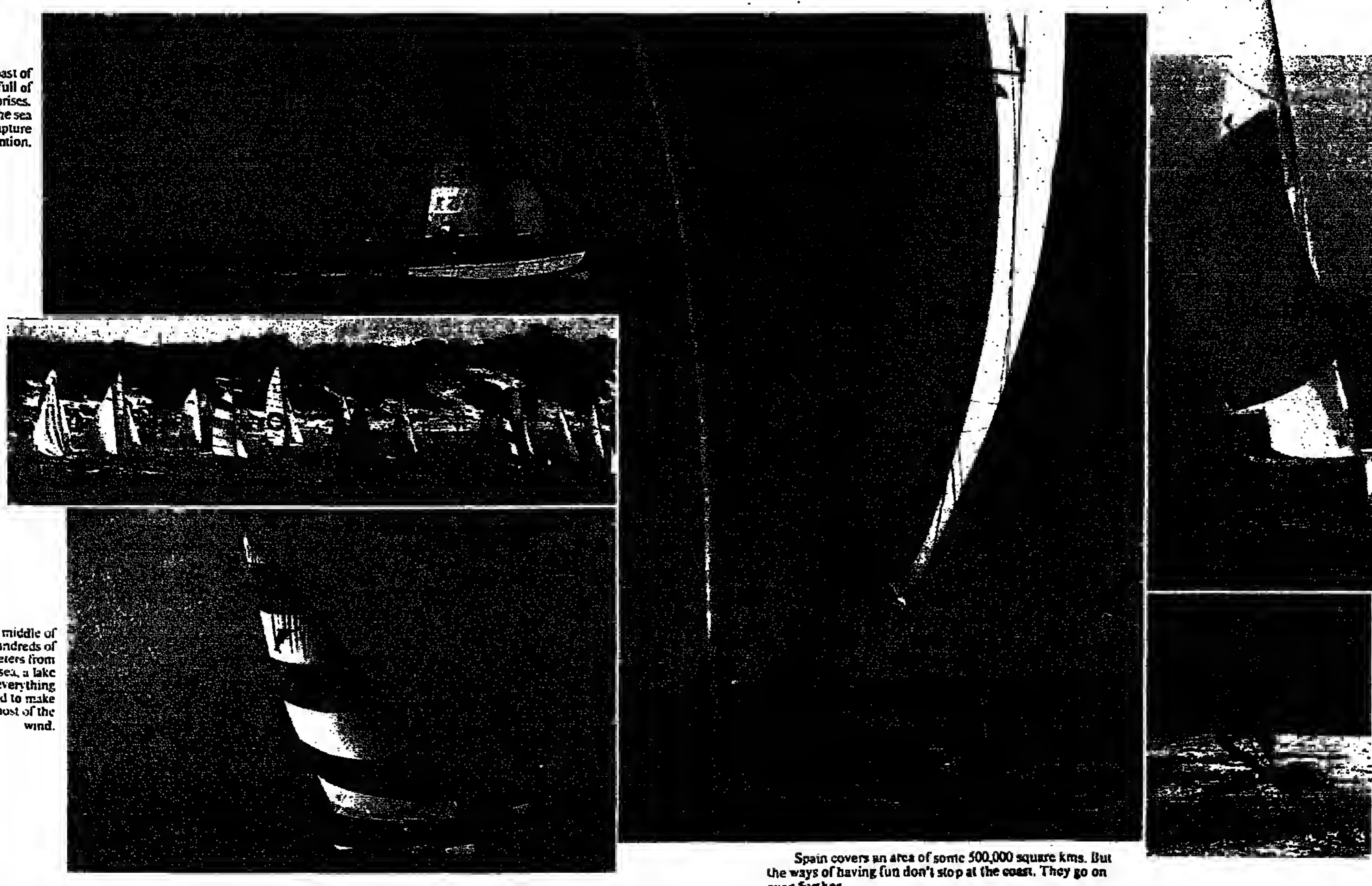
Selling to high-tech top management. D. S. Matlow in Business Marketing (US), June '86 (4 pages)

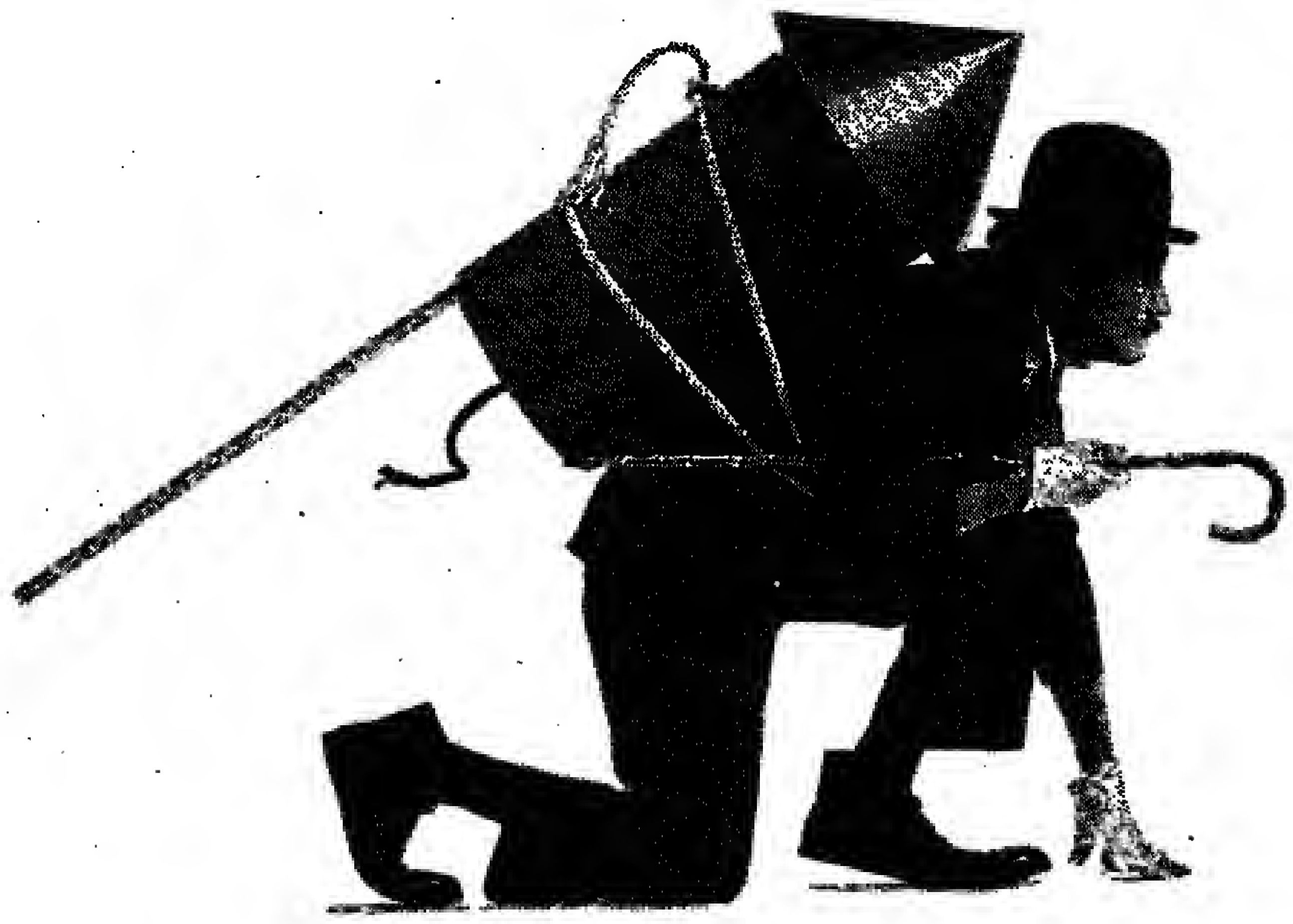
Examines the difficulties of closing sales to high-technology companies—for example, the time it takes, and the need to access customer top management; offers an approach to achieving sales objectives in which the target customer is reached "from the bottom up in order to sell from the top down." The aim is to make early contact with the "economic-buyer" who can make the purchase without higher approval.

Post-merger integration. P. Shrivastava in The Journal of Business Strategy (US), Summer '86 (12 pages)

Estimates that over half of all mergers simply don't work, a significant number being due to faulty post-merger integration; examines the principal integrative tasks at the procedural, physical and managerial/socio-cultural levels. Explains the need to determine the optimal degree of integration for each merger; takes into account the merger objectives and the size/form of the merging companies. Outlines strategies for integration, and advocates a phased, evolutionary approach rather than a big bang.

These abstracts are condensed from the abstracting journals published by Anbar Management Publications. Licensed copies of the original articles may be obtained at a cost of £4 each (including VAT and p & p: cash with order) from Anbar, PO Box 23, Wembley HA9 8DJ.





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For example the XT286 quickly helps you make sense of the largest spreadsheets. And it also makes lighter work of the heaviest business applications.

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The PC XT286 comes with a 20-megabyte fixed disk and a 1.2-megabyte slimline diskette drive.

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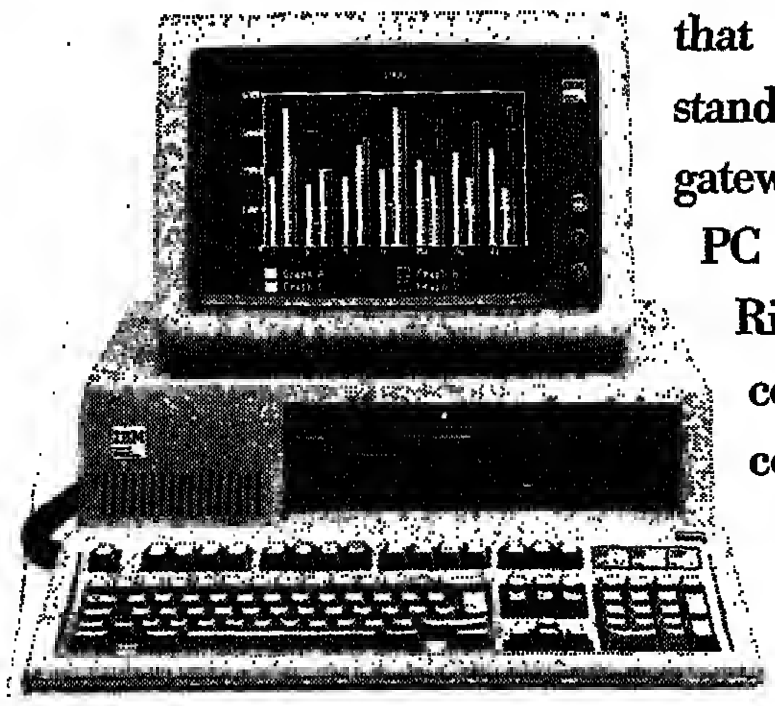
Think of the extra benefits that all this could bring to you personally. Storage and processing power that can be used as a stand-alone PC or as a gateway from your IBM PC Network or Token Ring Network to your company's mainframe computer.



That gives you easy access to applications and data stored there. All you need is the appropriate software, hardware and cabling.

Contact an IBM Authorised Dealer today or complete the coupon to find out more about how the new PC XT286 can give you an extra lift.

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IBM

CONTRACTS

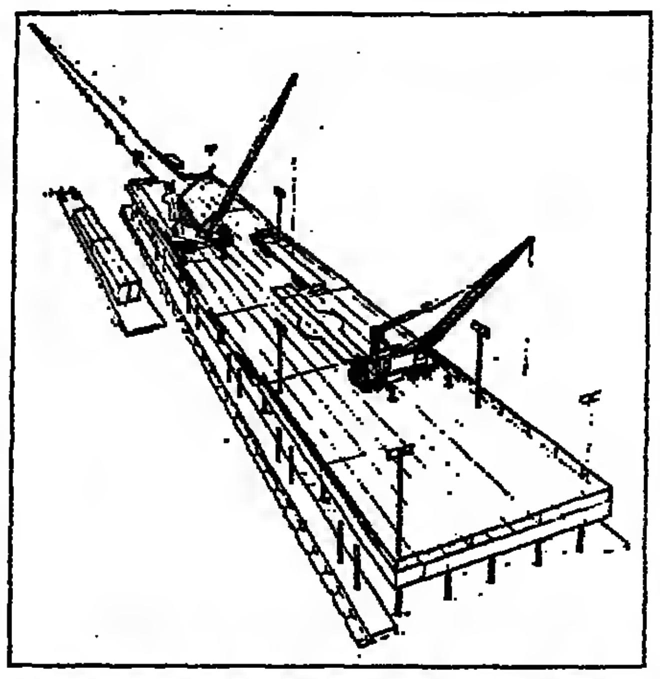
Fairey Marine wins US defence order

FAIREY MARINE has won a $13.8m (£9.7m) order, with a further $6m (£4.2m) option to develop a pontoon and causeway system for the US Department of Defense. The company won the contract, against stiff American competition, through keen pricing and because of previous experience producing a similar pontoon system for the British Army's Royal Corps of Transport, at Marchwood, Southampton.

Fairey Marine has entered a joint venture with two American companies acting as sub-contractors to develop, construct and demonstrate the new system and a prototype 600 ft elevated causeway from pontoon elements. The prototype system will be built in the US by the United Chem. Con Corporation of Pennsylvania while a second partner, Advanced Marine Enterprises of Washington DC, will provide support documentation for the US. Fairey Marine will supervise and manage the project over the next two years from its technical facility at Cowes.

A system of 40 ft and 20 ft long steel cells, each 8 ft wide by 4 ft 6 in deep, will clip together to form floating pontoons. The same cells will also assemble into elevated causeways up to 3,000 ft long, for transferring military stores from lighters over the surf line onto a beach in support of amphibious landings. Engineers will build the system from the beach, staying dry above the breaking waves by cantilevering each new section into position from the previous one by on-board crane, then driving support piles from the elevated section into the beach below. Because of this feature the system is referred to as CANTELCAS (Cantilevered Elevated Causeway) and, unlike previous systems, is stackable into container-sized units which can be moved and transported by standard container equipment.

"This is a most significant contract, moving us into a market which has enormous potential," says Fairey Marine managing director, Mr Jack Barr. "It's the culmination of a strategy we implemented two years ago to broaden out activities into marine-related floating assemblies built to defence standards. Our system has commercial as well as military implications and we're looking to Nato and other markets as well as the US. The basic pontoon cells can be applied to floating causeways, roll-on, roll-off pontoons, motorised rafts, diving platforms, floating breakwaters, and structures for storage and transportatioo of fluids and gases."



Artist's impression of the cantilevered elevated causeway developed by Fairey Marine for the US military.

£16m training simulators for British Airways

REDIFFUSION SIMULATION has won one of the biggest orders ever awarded for commercial flight simulators to supply British Airways with three simulators for its new Boeing 747-400 aircraft fleet. The order is believed to be worth a total of £16m. It includes a full flight simulator and a fixed base flight simulator, both of which will be used in conversion and recurrent training for the airline's pilots, and a ground maintenance simulator which will be used to train engineering crews in a wide range of ground maintenance procedures. All three will be installed at BA's Heathrow flight and engineering training centres by autumn 1988 in anticipation of the first new aircraft delivery scheduled for March 1989.

Visual simulation of the outside world is expected to be achieved using the Novoview SP-X 500BT computer generated image system on which BA currently holds an option. SP-X, demonstrated at this year's Farnborough Air Show, provides a realistic representation of real world airports, environments and operating conditions. The fixed base simulator is designed to allow upgrade to a full flight simulator, by the addition principally of motion and visual systems, as training needs develop.

In the host computer for the new simulators, Rediffusion will be working with BA on the future development of the first Unix operating system to be used in association with Gould Concept 32/67 and 27 processors and reflective memory hardware. The full and fixed based simulators will be built at Rediffusion's Crawley factory with the ground maintenance simulator being built at its Aylesbury plant.

British Airways has ordered 16 Boeing 747-400s and holds options for an additional 12 aircraft.

Rediffusion Simulation is part of BET.

IN BRIEF

W. H. ALLEN, part of NEI-APE, in turn part of Northern Engineering Industries, has obtained a repeat order worth £3m from the Indian Oil Corporation for a further six crude oil-burning 8-cylinder-type S37 engines, to drive crude oil pumps on the Salaya to Mathura pipeline in north-west India.

★

British Telecom, one of ICL's largest private sector customers, has placed an order for ICL Series 39 mainframe systems, terminals and maintenance service, worth £8m, and linked to the contract obtained by ICL in 1985 for similar, advanced equipment for British Telecom's customer service systems. It provides British Telecom's inland communication division with ICL Series 39 Level 80 mainframes being installed in Edinburgh, Rochdale, Cambridge and St Albans.

★

A $6m order has been placed with Orenda, the Canadian subsidiary of HAWKER SIDDELEY of the UK, for the manufacture and supply of jet engine turbine nozzles, by the Lycoming division of Avco Corporation of the US. Orenda turbine nozzles are fitted to Avco-Lycoming ALF 502 engines which are supplied to British Aerospace to power the BAe 146 commuter aircraft.

★

National Provident Institution (NPI), the UK life assurance and pensions concern, has purchased a HONEYWELL large scale DPS90/91 mainframe computer, valued at £3.5m, to develop on-line systems and provide service to intermediaries and customers.

★

BLACK CLAWSON INTERNATIONAL, Newport, has signed three contracts worth £3m with the Chinese Government to supply equipment for a process line for turning bamboo into packaging grade material.

★

WARMAN INTERNATIONAL of Todmorden in Lancashire has been awarded its largest single contract, worth more than £2m, for the supply of pallet assemblies to Lurgi (UK) for installation at the British Steel Corporation Scunthorpe complex in Yorkshire. The assemblies are for two new 4 metre wide sinter strands which will produce 80,000 tonnes per week of sinter.

Company Notices

Hoechst

LONDON DEPOSIT CERTIFICATE

S.G. Warburg & Co. Ltd. as Depositary, hereby gives notice to Holders of London Deposit Certificates that Resolutions were duly passed at a Meeting of Certificate Holders held on 7th November, 1986, that firstly, a new form of London Deposit Certificate be adopted forthwith and secondly, that existing Certificates must be surrendered in exchange for Certificates in the new form.

Each Certificate Holder must now forthwith surrender to the Depositary his London Deposit Certificate(s) and receive in exchange without payment, one or more London Deposit Certificate(s) in the new form with 35 Coupons and a Talon attached covering the same number of shares as the Certificate(s) surrendered, at the office of:–

S.G. Warburg & Co. Ltd.
Paying Agency, 6th Floor,
1 Finsbury Avenue,
London EC2M 2PA

1st December, 1986

PUBLIC NOTICE

It is proposed to close down the Sonthell (London) branch in UK of Punjab and Sind Bank and vest the assets and liabilities of the branch in the Bank of Baroda as at the close of business on 31.1.87.

This is being done with a view to consolidate and rationalise the operations of the branches of Indian banks in the UK. The dues of the depositors and creditors will be met in full. The existing depositors of Punjab and Sind Bank may avail of the facility of continuing their accounts with the transferee bank.

The former bank will issue suitable advices in this regard in due course.

Sd. Dr. K. K. Mukherjee
Chief Officer, DBOD
Reserve Bank of India.

N.V. MIJNMAATSCHAPPIJ CURAÇAO

established at Amsterdam

With reference to the amendment of the conditions of Administration, dated 25th June 1986, the undersigned advises that as from 1st December 1986, depositary receipts of the A1 share in the denomination of one receipt will be obtainable at the Head Office of Bank Mees & Hope NV at Amsterdam.

Amsterdam, 1st December 1986

Trust-Maatschappij
Curaçao I B.V.

REPUBLIC OF INDONESIA
US$200,000,000 FLOATING RATE NOTES DUE 1992

In accordance with the provisions of the Notes, notice is hereby given that the rate of interest for the period from 28th November 1986 to 28th May 1987 has been fixed at 6.3125 per cent per annum.

On the 28th May 1987 interest of US$317.38 per US$10,000 nominal amount of the Notes and interest of US$7934.46 per US$250,000 nominal amount of the Notes will be due against Interest Coupon No. 10.

SWISS BANK CORPORATION
INTERNATIONAL LIMITED
Reference Agent

Art Galleries

COLNAGHI, 14, Bond Street, W1. 01-491 7408. An exhibition of OLD MASTER PAINTINGS. Throughout December, Mon.-Fri. 10-5.30; Sat. 10-1.

LEFEVRE GALLERY, 30, Bruton St., W1. 01-493 2107. IMPORTANT XIX & XX CENTURY FRENCH AND BRITISH PAINTINGS AND DRAWINGS. Until 19th DECEMBER. Mon.-Fri. 10-5; Sats. 10-12.30.

LEGER, 13, Old Bond St. ANNUAL WATERCOLOUR EXHIBITION. Mon.-Fri. 9.30-5.30. 01-629 3538.

OMELL GALLERIES, 43a, Duke Street, St. James's, London, SW1. 01-930 7744. MARINE PAINTING BY BARRY MASON. Mon.-Fri. 9.30-5.30; Sat. 10-1 pm.

RICHARD GREEN, 4, New Bond Street, W1. 01-493 3939. XIX & XX CENTURY FRENCH PAINTINGS. Mon.-Fri. 10-6; Sats. 10-12.30.

ZAMANA GALLERY, 1 Cromwell Gardens, SW7. 01-584 6612. ISTANBUL — A Photographic Journey through Turkish Architecture. Until 18 Jan. Tues.-Sat. 10-5.30; Sun. 12-5.30.

Clubs

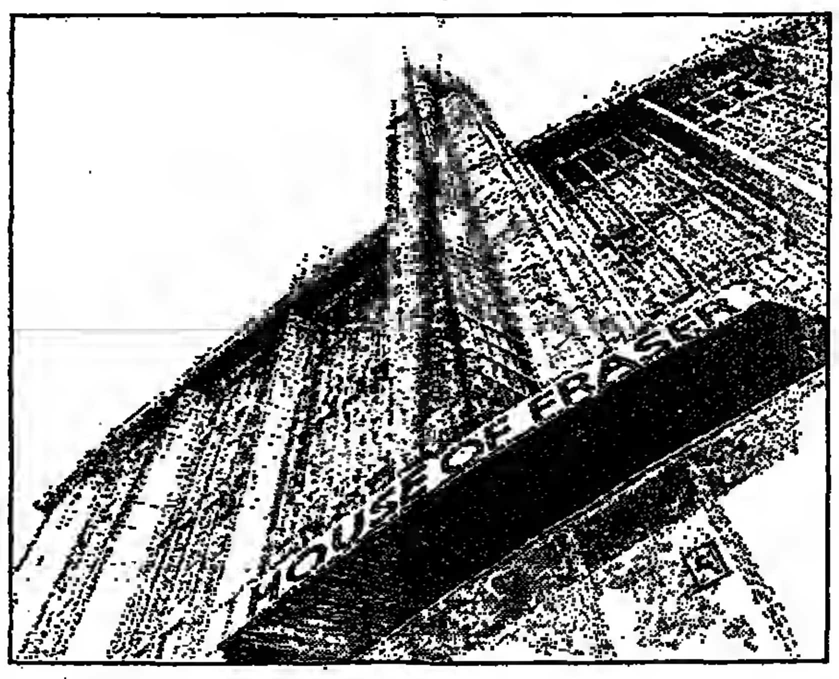
EVE has outlived the others because of a policy of fair play and value for money. Supper from 10-3.30 am. Disco and top musicians, glamorous hostesses, exciting floorshows. 189, Regent St., W1. 01-734 0557.

MONDAY DECEMBER 1st

THE OTHER BIG BANG:

House of Fraser is about to do to department stores what the first Big Bang did to finance.
We're going to change the rules, break out of the straight jacket of tradition and create the radically different shopping environments demanded by the twenty first century.

The first of these in London will open at noon today in Kensington High Street.
You are then invited to step across the threshold into the future. Into a department store like no other you've ever seen before. But which, in years to come you will increasingly see in the High Streets of Great Britain.
You will know them by the name above the door, House of Fraser. And the fact, perhaps, that unlike the revolution in the City, ours will be something to shout about from the very first day.



HOUSE OF FRASER
KENSINGTON HIGH STREET

THE START OF A NEW ERA IN DEPARTMENT STORES

THE MONDAY PAGE

FORTUNE MAGAZINE recently called him America's most successful entrepreneur, but he much prefers to be labelled a professional manager. When he discusses corporate policy, he assiduously avoids the use of the first person singular, although everyone says that he is in absolute control of the company. He runs the fastest-growing large computer group in the world, yet he talks about his rivals without the slightest hint of aggression.

These are just a few of the contradictions in Mr Ken Olsen, the quirky, 60-year-old electronics engineer who in the last 29 years has built Digital Equipment Corporation from nothing to become IBM's most formidable competitor. He clearly dominates the company, as big and as chunky as the New England granite which surrounds DEC's headquarters. Yet he is a difficult man to measure, a mixture of personal charm and diffidence, open but obtuse, a visionary who likes working through committees, both autocrat and democrat at the same time.

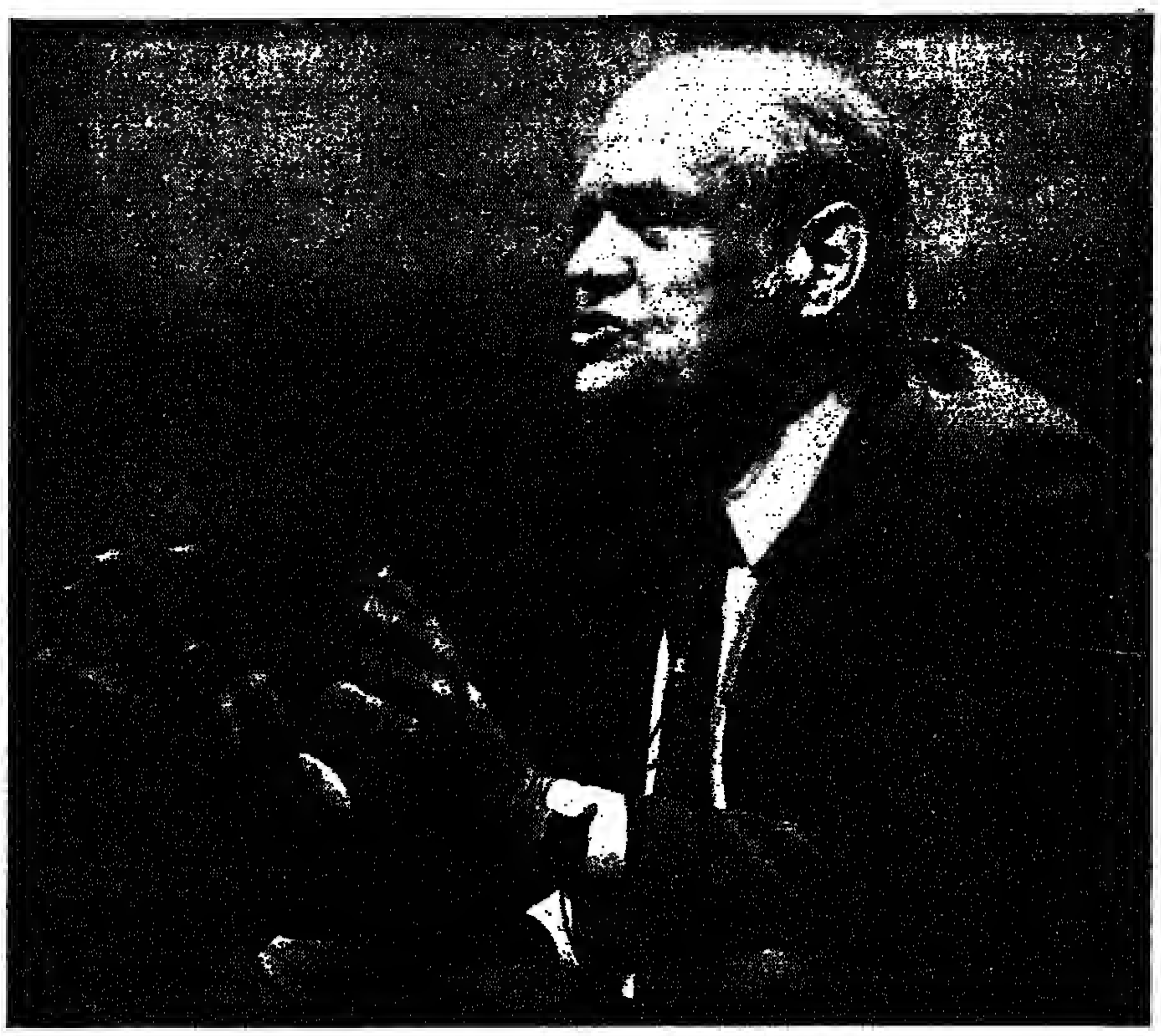
Just one example of this oddly tangential, unexpected approach to business is his attitude to IBM, the computing giant which casts a heavy shadow over every other company in the business. "We are committed to giving people an alternative to IBM," he says. "It is really our social obligation to the world, and no one else is going to do it."

DEC's growth in the brief quarter-century since Olsen and five partners set up shop in the corner of an old Massachusetts textile mill is the epitome of the American business dream. They started with virtually nothing—just $70,000, mostly borrowed from a Boston venture capital firm. In the early days, they scrimped and saved wherever they could. Olsen, it is said, vetoed the hanging of doors, even on the toilets, because they were too expensive, and he proved a dab hand at adapting common-or-garden products to exotic electronic purposes. The partners did everything themselves, from sweeping the floors to the demanding, cerebral effort of designing the world's first commercial minicomputer.

The mini-computer, a small, robust machine designed for scientists and engineers like themselves, was an immediate smash hit. It opened an entire new chapter in the history of the computer industry, bringing data processing power down from remote corporate eyries to the departmental level where the engineers could use it to help crack day-to-day problems. "We saw our mission as introducing interactive computing, a strange new concept at that time," says Olsen.

Scores of start-up companies in the burgeoning US computer and electronics industries have since mirrored DEC's success. Many of them have produced entrepreneurs who became American business heroes but none has yet achieved quite what Olsen has done as he quietly drove DEC into the number two position in the world computer league—a position it has only had to surrender this year following the merger of Burroughs and Sperry. Today, with revenues of $7.6bn, DEC is the undisputed star of the middle sector of the computer market, where it has outmanoeuvred IBM with a series of innovative products.

Long ago, this extraordinary record of growth turned Olsen into a multi-millionaire—with 2 per cent of the company, his stock is worth well over $200m today. Indeed, he would have been a multi-billionaire if he had managed to retain the sort of equity participation which



INTERVIEW

The man who made IBM pay to catch up

Terry Dodsworth talks to Ken Olsen, head of DEC.

US entrepreneurs generally manage to squeeze out of their backers. But in many ways, Olsen is not a typical high-tech entrepreneur—and DEC, which more than most companies reflects its founder's personality, is an equally uncharacteristic high-tech business.

Perhaps the most palpable impression visitors bring away from DEC is of an organisation where everything is deliberately understated. The company has a much lower profile than smaller but more glamorously presented groups such as Wang or Apple. Olsen shuns ostentation, driving around in a Ford Escort, and still working from a corner office of the old woollen mill where it all started. The site, poised over a lake within a few miles of Thoreau's Walden Pond, seems to have been chosen more for its natural beauty than its accessibility.

While he does not avoid publicity, Olsen does not go out of his way to court it either, and seems unconcerned about his public image. Commenting on a period when the company came under withering attack four years ago, he says that "being beaten up by the Press, sometimes quite unfairly, was a big advantage, because it brought everyone together." He insists that the criticism never caused him to question his judgment. "I never felt that we were wrong. But I never felt that the world owed it to us to be successful either. The world doesn't work that way, and we made a number of mistakes."

Behind this detached, otherworldly attitude, however, there is a bubbling enthusiasm for computers and what can be achieved by finding more and more uses for them. The atmosphere in the DEC headquarters today is enormously infectious, as it rides the wave of success for its new range of mini-computers. But DEC has always been a company that believed fiercely in its products and which has, as a result, extracted equally ferocious loyalty from its customers. To this day Olsen will go off and tinker with the machines. "We believe we are a product company," he says.

Olsen's love of the product, honed by a long research spell at the Massachusetts Institute of Technology, began early, messing about with radios in the cellar of the family home. These years spent in a fundamentalist Christian household also infected him with the other abiding passion of his life, a deep religious faith which is just as important to him as computers. More than most businessmen, he is willing to talk about ethics, and he regularly attends a prayer meeting of top Boston businessmen.

Olsen's Christianity has unquestionably been a significant element in the development of DEC. For ethical reasons he is strongly opposed to marketing, which he habitually describes as "selling customers something they don't want." He is also deeply suspicious of advertising, on the grounds that it often distorts the truth; and he refuses to pay his salesmen commissions. "The message you are giving salesmen on commission is to work hard for the order, but not so hard for the people who gave you the order," he says.

This mixture of personal modesty and rock-hard conviction has frequently puzzled and disconcerted observers, and it has clearly contributed to the group's unconventional management style. Until very recently, DEC has been run in a collegiate spirit. In the early days, scientists would come together on projects when they warranted it; later on, the company was split into separate fiefdoms centred on specific product lines, but answerable to a central committee. Olsen's authority is exercised through this committee, where he prods away until a consensus emerges.

While he may not impose his attitudes, he concedes that four years ago he had to act to resolve a crisis and give the company new direction. It was in this period that DEC reached its lowest ebb. Wall Street and the rest of the investment community seemed to be mesmerised by IBM's new personal computer range, which was then effortlessly sweeping the opposition aside. DEC's own personal computer flopped dramatically, generating a flood of obituary notices in the business press as profits plunged in 1983. Olsen was written off as an old man with founders' disease—the inability to see the need for change.

Far from being inactive, however, Olsen was at that time struggling to introduce a more centralised, conventional management system. It was a wrenching episode, dragged out over many months as he stubbornly pushed the issues through committee, often against the opposition of people who had helped him build the company. There were several defections, followed by prophecies of impending doom.

Characteristically, he describes his part in this reorganisation in muted terms. The policies had been agreed, he says, but DEC, being a "free-wheeling, undisciplined organisation," was not following them. "So it was clearly my responsibility to do exactly what I did." While it hurt to see his friends go, "they were entrepreneurs, good at ad hoc, spur-of-the-moment decisions. They could not swallow the discipline of having to work together."

DEC's fabulous growth spurt against the tide in the industry has since totally vindicated the reorganisation. What the company has done with its new range of machines is to make it possible to link various types and sizes of products in a network which spreads computer power throughout an organisation. Its computers span the power range from small desk-top personal computers to the bottom end of the large mainframes. Yet because they are all designed to talk to each other without expensive adaptations, they can simply be plugged together in the way that telephones can be hooked into the public network.

"The most important thing in business is to have an organisation that works together, and the key question in computing is to be able to tie up machines easily with each other," says Olsen.

This is a view which is increasingly attracting converts, even at IBM, which is now rushing to catch up with more compatible machines. The fascination with personal computers as an end in themselves is dying away, and Olsen is clearly convinced that DEC's "simple, elegant solution for tying a system together" has created a much better base for substantial growth.

But he refuses to be drawn on how effectively DEC can challenge IBM, a company which is seven times its size. That he leaves to Wall Street, which in a typically sharp swing of sentiment has pushed IBM into the dunce's corner occupied by DEC four years ago.

● PERSONAL FILE

- 1926: Born in Stratford, Connecticut.
- 1944: Service in US Navy.
- 1947: Entered Massachusetts Institute of Technology. Graduated as electronics engineer.
- 1950-1957: Research worker in MIT computer laboratory.
- 1956: Secondment from MIT to IBM.
- 1957: Founded DEC with five partners.
- 1960: Young electronics engineer of the year.
- 1970: US businessman of the year.

Goodbye to all that Good Sex

JOHN LLOYD

TODAY, DECEMBER 1, sees the opening of the retrospective season, the annual, that-was-the-year-that-was, period in journalism. Here is an early entry.

Nineteen-eighty-six has been the Year of Bad Sex. It has opened up the question, now being thrashed through at bar counters and dinner tables, of whether or not this is the beginning of the era of bad sex.

Aids is at the root of it, of course. But from a variety of other sources, as well, have come fresh anxieties and movements which could bring the Era of Good Sex, generally thought to have begun in the 1960s, to a close.

The Good Sex Era, which depended largely on widely available and (for men) safe and trouble-free contraception, saw a general acceptance of the view that sexuality was benign, and the more the better. Of course, there were all sorts of people and institutions protesting that life could never be that simple: but they were on a slippery slope.

Some of these anxieties and movements are serious, though not as serious as an uncheckable AIDS epidemic. Women have become increasingly concerned over cervical cancer, and the possibility of infection from men—a strong argument against promiscuity, or at least for the use of condoms. Feminists have taken a lead in this, as they have in insisting on the seriousness and high incidence of rape and other sexual abuse. More and more, it seems, the women have come to see the sexuality revolution as one which benefited men only.

Others are a hopeless mixture of seriousness and hype. Ms Esther Rantzen of the BBC has put the problem of child abuse—very often sexual abuse by a parent, more usually step-parent or relative—at the forefront of the public mind through "Childwatch." Her programme, which called for responses from the afflicted, attracted enormous numbers of calls—some 50,000 immediately after its broadcast—pointing, it seems, to a huge subterranean world of youthful misery.

Yet resentful members of the "caring" professions have been growling that this blitz is merely another neon-lit one-night stand for the rootless media circus leaving a trail of impossibly aroused expectations behind it: while parents have voiced fears of their children reaching for the Childwatch number after a domestic altercation or from a rage of repressed jealousy of a supplanting but innocent step-father.

For all that, though, the violation of children and of women is now exposed to debate and posed as a problem with which society and its managers are enjoined to deal. The freedom of sexuality, seen 20 years ago to be an undifferentiated advance towards the light is now represented as dark, terror-laden and even possibly fatal.

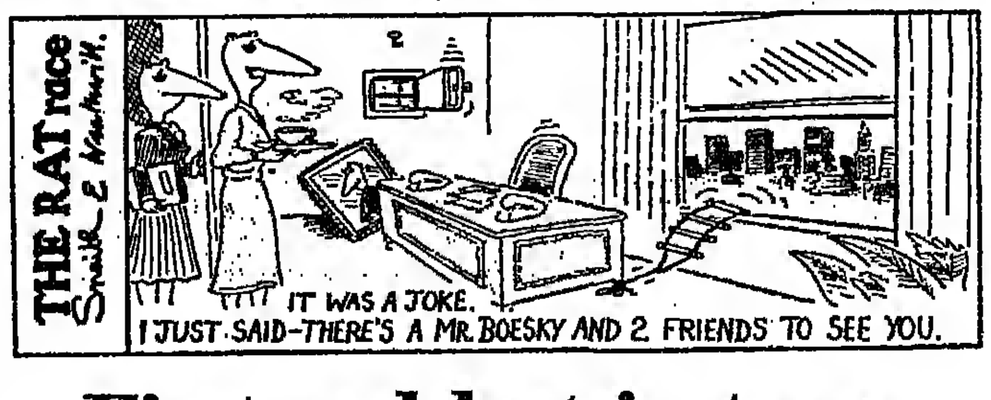
The signs of the times are all around. A spate of books — Germaine Greer's "Sex and Gender," Celia Haddon's "The Limits of Sex" and the most recent Liz Hodgkinson's "Sex is not compulsory," all counsel abstinence as preferable to bad sex or even any sex. Mrs Mary Whitehouse won by a 2-1 margin when supporting, in a Cambridge Union debate last month, the case that pornography should be banned.

AIDS has given all of this a huge boost. The frightening growth in the prevalence of the disease, the dawning realisation within the heterosexual majority that it is not simply a "gay plague," the shivering fear induced by photographs or descriptions of its victims—all of these are now changing the sexual calculations of more and more people in Western Europe, as they already have in the US and in the homosexual communities almost everywhere.

It has also inserted itself into conversation everywhere, quoted in a mixture of prurience, mirth and alarm. A colleague of mine listened with awe to a group of rather drunk teenage girls having a conversation about the need to carry condoms (Woman's Own magazine last week offered a free packet to all its readers). Another colleague has recorded the first known AIDS-related break-up of a relationship when a woman refused further sexual relations with a man unless he underwent AIDS screening after a return from a visit to New York.

In "The Making of the Modern Family," Edward Shorter writing in the still-good-sex times of the 1970s says that "in the 1960s the chances were very high that young people who felt attached to each other would extend their relationship to the sexual domain. Even those who did not feel very attached would probably do so as well . . . the chances were overwhelmingly that if things did not go well in either the quantitative or qualitative realm of sexuality in the 1980s, the couple would dissolve and the dance of courtship would recommence with someone else. And *that* would have been unthinkable in times past."

Will it become too scary to be thinkable in times future? Perhaps. Shorter also believes that increased pre- and extra-marital sexuality is a function of the loosening of community ties and inter-generational bonds consequent on rapid industrialisation from the mid-18th century: and these bonds are looser now than ever. The automatic linkage of sexuality and good times, so distressing to those who could not get enough of the first to believe they were having the second, is broken, for sure. But it was rarely made before the 1960s, at least not "officially"—and yet there was plenty of it about, especially among the masses on whom Victorian and other prudery made little dent. Rich, hedonistic, largely irreligious, me-oriented societies are going to find it extremely hard to give up private sexual pleasures, once discovered. We may be entering the age of the condom and the private sexual fantasy.



First and last instance

JUSTINIAN

THE Master of the Rolls, Sir John Donaldson, is not the only senior judge who is tackling the prolixities of legal proceedings in appellate courts. The House of Lords has now weighed in to dissuade disputants who choose to litigate at length—very often all the way up to the House of Lords—simply about where they should conduct their litigation.

In *Spiliada Maritime Corporation v Cansulex Ltd* the Law Lords have put down a marker to indicate the unwillingness of appellate courts to allow parties to indulge their litigious appetites. The recipe for the future is that the court of first instance is pre-eminently the place to test the merits of trial in England, as against litigation abroad. And that should be the end of the road, both in the interests of the parties and the need to curtail the expansive procedures which we can no longer afford.

Where the initiator of legal proceedings is entitled to begin his action in England, the courts here will stop him in his tracks only if his opponent can satisfy the court that some other available forum for resolving the dispute is the more appropriate. Where, however, the initiator can bring his action only by leave of the court, it is he who must satisfy the court that England is the more appropriate place to have his action tried. Whatever reasons may be advanced in favour of a foreign court trying the case, the plaintiff should be allowed to pursue at home an action over which the English court has jurisdiction if it would be unjust to confine him to the more limited remedies elsewhere.

The instant case involved a bulk carrier, managed partly in Greece and partly in England. The vessel flew the Liberian flag and was owned by a Liberian corporation which claimed that the cargo of sulphur, loaded by a shipper in Vancouver and carried from British Columbia to ports in India, had been damaged. Both sets of insurers were English.

The factors which the courts have taken into consideration whether one forum is to be preferred to another are legion. And the case-law on the subject is anything but helpful.

In the present case, the shippers preferred the Canadian courts because the limitation period in British Columbia was favourable to their cause. The shipowners and their insurers thought differently. Other cases throw up conflicting evidence, about which optimistic and gloomy assessments of expense, delay and inconvenience vie with each other to attract or distract the court in looking for indicators of one solution rather than another.

The key to the solution lies in the underlying principle. The judges have to consider where the case may be tried "suitably for the interests of all the parties and for the ends of justice." The application of that principle in relation to advantages which the plaintiff may derive from invoking the English jurisdiction focuses on four major factors: damages are awarded on a higher scale in England than in most other countries: apart from the United States, there is a more ample procedure for the disclosure of documents in the English system; a power exists in England to award interest on the damages awarded; and there is a more generous law of limitations with regard to the period in which an action must be brought. Deprivation of some of these advantages will not deter the English court from telling the plaintiff to try his luck elsewhere, so long as the court is satisfied that substantial justice will be done

Perhaps the most telling factor is currently the discovery of documents. There is a spectrum of systems of discovery applicable in a variety of jurisdictions, ranging from limited disclosure available in Western European countries, to the ample — some would say excessively generous — procedure for discovery in the US. The English system lies somewhere in the middle of the continuum of discovery systems. All systems have their virtues and their vices, and no doubt suit the different cultural habits of the country's litigating citizenry. But no justice is done if a party is, in effect, compelled to accept one of the well-recognised systems applicable in the overseas courts.

This contrasts sharply with the approach currently adopted by the United States courts. Judge Keenan in the District Court of the Southern District of New York, in May of this year, ordered a stay of proceedings, commenced on behalf of Indian victims of the Bhopal disaster against the Union Carbide company in the United States, subject to the condition that Union Carbide would submit itself before the Indian courts to discovery under the model of the US Federal Rules of Civil Procedure after appropriate demands by the Indian plaintiffs.

This approach, of trying to get the best of both worlds, has never found attraction with English judges. Five years ago the Law Lords thought it right that there should be a stay of proceedings in England, where the appropriate forum was Switzerland, even though the plaintiffs were thereby denied the advantage of the more expansive English procedure of discovery of documents in a fraud case.

Lord Goff of Chieveley has given the *coup de grâce* to future legal arguments over where litigation should take place. Lord Templeman was altogether more drastic in prescribing the remedy for long-winded proceedings to decide the venue of litigation. He recommended that trial judges should fully digest Lord Goff's speech in *Spiliada* in the quiet of their rooms, and thus without expense to the parties in having it read *in extenso* in the courtroom. He went on to recommend that the judge should ignore the accumulated body of case-law and listen to oral submissions "measured in hours, not days."

An appeal from the judge's decision would become a rarity, if only because the appellate court would be extremely reluctant ever to interfere.

Every day now, judges in England are exhibiting their awareness of the virtues of restricted oral advocacy and of slimming down the process of litigation. The European legal systems, with their heavy reliance on written briefs from the parties, and limited amount of time for oral hearings, are becoming infectious.

Financial Times

ARCHITECTURE AT WORK

1986 Award for Industrial and Commercial Buildings

The Award

The Financial Times Architecture at Work Award for 1986 has been given to the **Megget Reservoir and Control Building**, near Selkirk in Scotland, and the assessors wish to include in the prize the white tower spillway that sits in the lake, the stilling pool, the dam itself and the whole composition of the giant landscape of the scheme.

The stone and steel entrance gates, the portal in the hillside that leads to the waterpipes to Edinburgh and the entrance to the Control Building are all consistently carried out in a well-composed development and enlargement of the local drystone wall vernacular. The Control Building is below the surface of the dam which allows the dam to be the major element in the landscape and permits wildlife and plant life the same opportunity to colonise the valley as it had before.

The Control Room is itself very well designed and is connected to the elegant white tower by a blue tunnel and in the other direction down to the very effective (literally and in landscape terms) stilling pool, whence the burn proceeds down the valley.

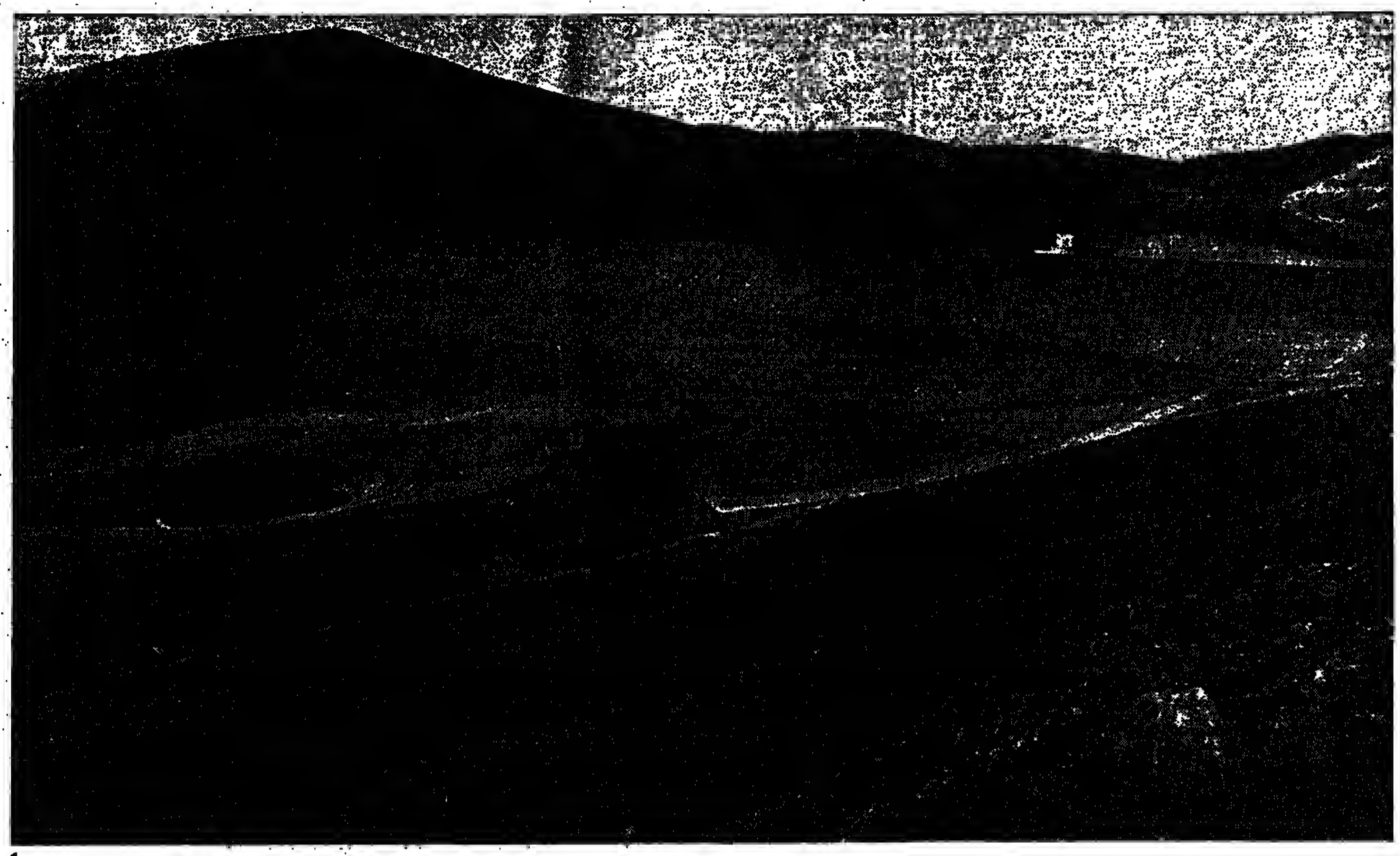
All the elements combine together to contribute and respond to the large scale of the lake and the beautiful surrounding landscape; good in the detail of their design, and good as the parts of a bold whole. The assessors are happy to give the Award to this scheme.

In 1986 the assessors were architects Edward Cullinan and Richard Rogers (until August) with Lord Gibson as the layman.

WINNER

1 **Megget Reservoir and Control Building, Cappercleuch, Selkirk, Scotland**

Architect: W J Cairns & Partners
Engineer: R H Cuthbertson & Partners
Client: Lothian Regional Council
Contractor: Whatlings (Civil Engineering) Ltd



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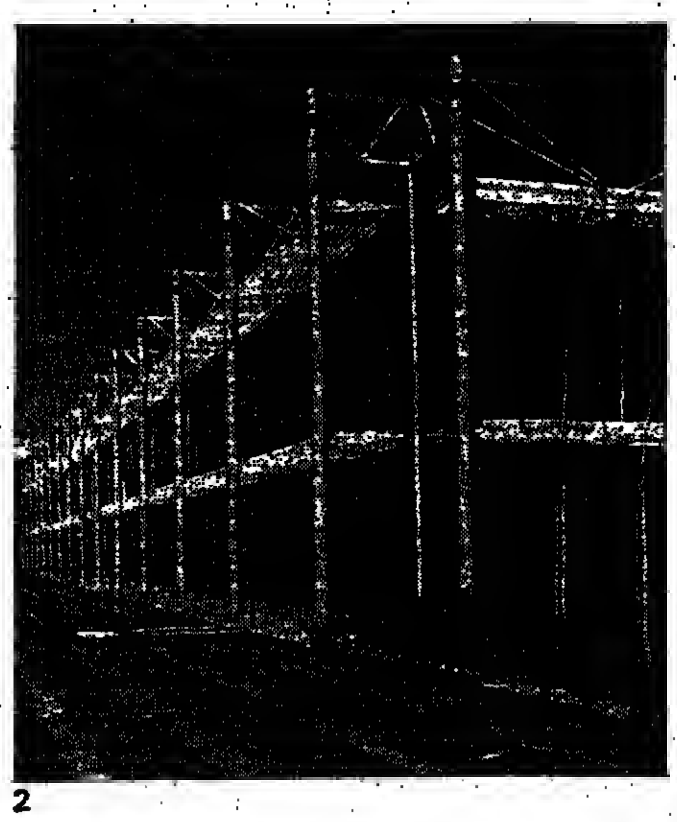

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2 **Lennox Wood, Southwater Business Park, Horsham, Sussex**

Architect: Michael Aukett Associates
Engineer: Anthony Hunt Associates
Client: Sun Alliance Insurance Group
Contractor: IDC Limited

3 **J Sainsbury plc, Supermarket, Kingsmead Road, Canterbury, Kent**

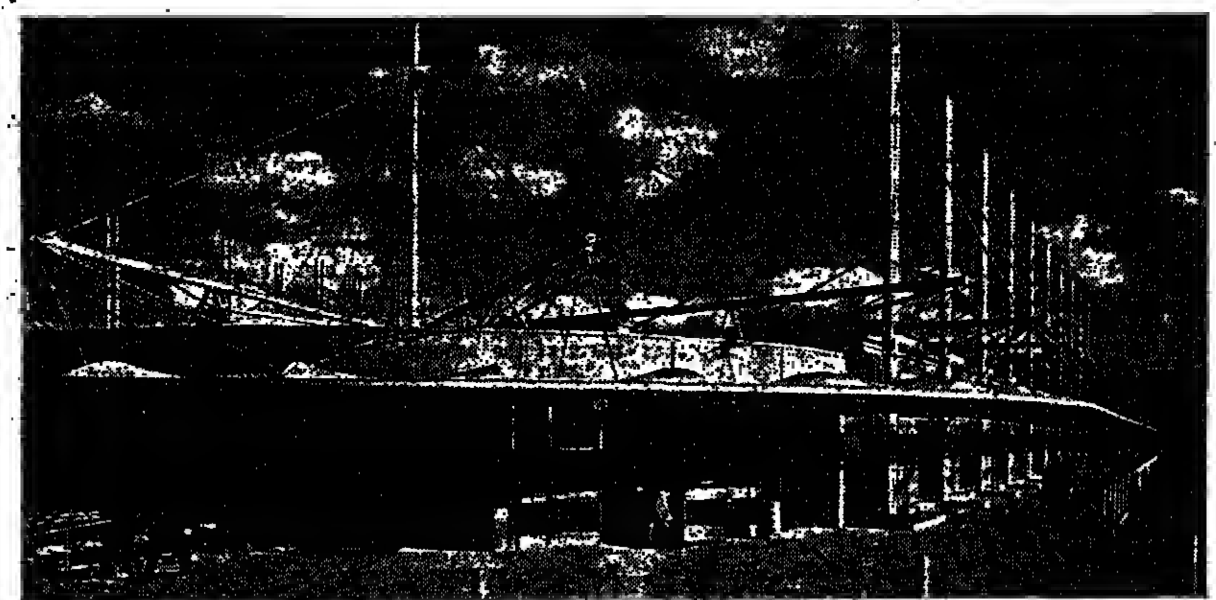
Architect: Ahrends Burton & Koralek
Engineer: Ernest Green & Partners
Client: J Sainsbury plc
Contractor: Wiltshier Ltd

4 **Link Centre, Whitehill Way, Westlea, Swindon, Wiltshire**

Architect: Thamesdown Borough Council, Architects Department
Engineer: Anthony Hunt Associates
Client: Thamesdown Borough Council
Contractor: Bovis Construction Limited

5 **Newcastle Travel Centre, Central Station, Newcastle-upon-Tyne, Tyne and Wear**

Architect: Regional Architect's Office, Chief Architect's Department, British Railways Board, York
Engineer: Regional Civil Engineer, British Rail Eastern Region
Client: British Railways Board
Contractor: Shepherd Construction Ltd



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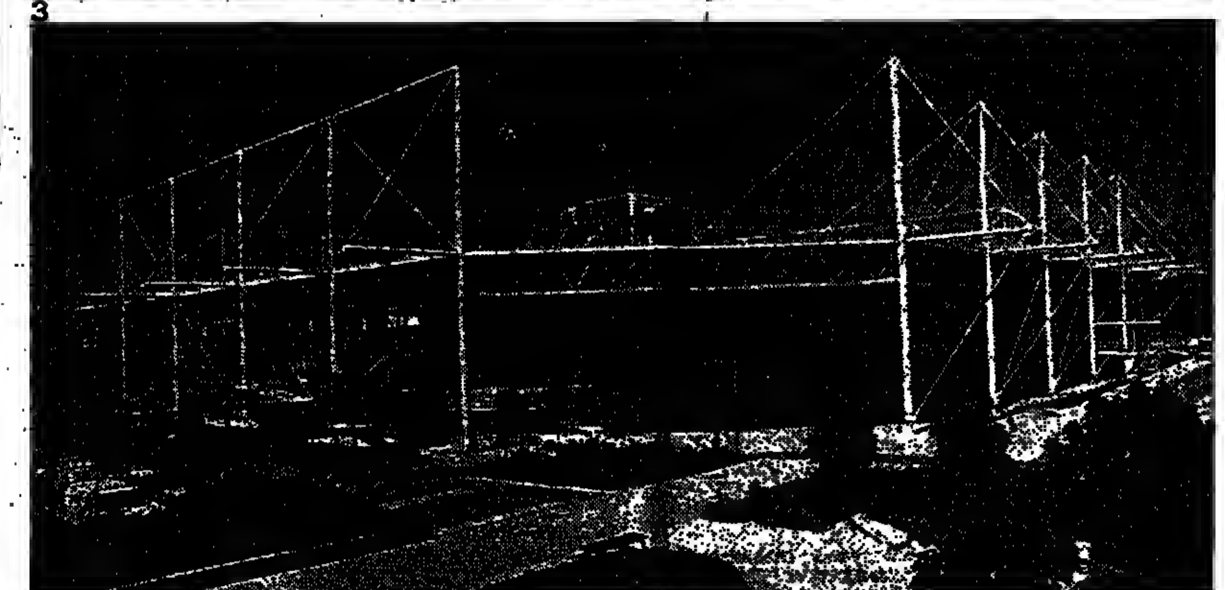

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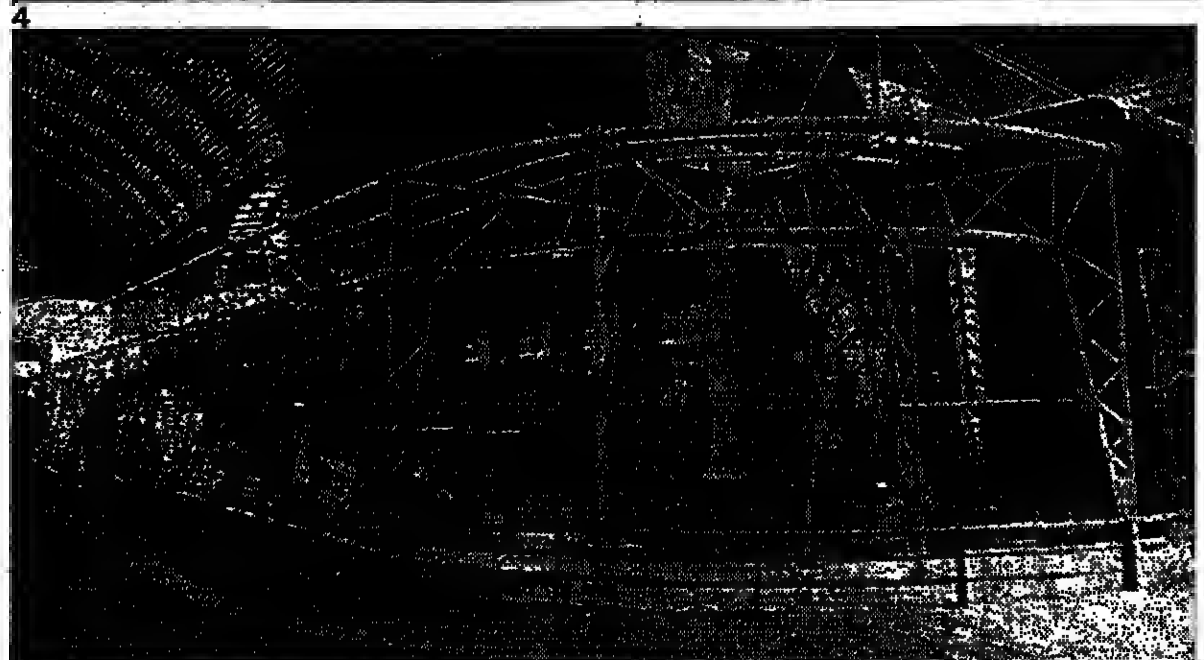


5

Commendations

The Link Sports and Social Centre in Swindon is commended for its asymmetrical composition of many varied elements under the great canopy of a suspended, rectangular and mono-planar roof. The skill and high speed with which the building was designed and built is reflected in the infectious enthusiasm of its occupants, which extended as far as push-starting the jury's car swiftly and effectively at the end of their visit.

The reason that it was not given the prize is partly a result of this very quick pace of design, construction and occupation, resulting in a certain amount of rather inconsistent detailing and some clumsy junctions.

The assessors also commend the **Sainsbury's supermarket at Canterbury** for its powerful external roof structure of silver masts, spars and ties, both well designed in its own right and as a complement to the Cathedral. This lovely roof structure also serves to make an excellent elevation along the main front and is completed by the addition of a very elegant tensioned pedestrian canopy. However, the assessors were a little disappointed by the other sides of the building which actually form fronts to other roads in the town, and the interiors of the service areas were poorly detailed and finished.

But the commendation stands firmly on the notable achievement of responding inventively and elegantly to a numinous environment without the pastiche so often favoured by supermarkets.

The Sun Alliance building at Lennox Wood, near Horsham, is commended for its calm, almost Palladian quality in the landscape of a major new public park, including its delightful use of the old device of the 'ha-ha.' The building also has smart and comfortable interiors and provides an excellent working environment.

The realisation of the simple cross structure of the building is more suited to its glass elevations than to its opaque ones and it has some difficulty going round the corners of the L shaped plan: but the building serves as a fine example for future Company Headquarters in country or suburban settings.

The assessors also wish to commend one further building, which in some senses is not a building at all, but a clever insertion. **The Newcastle Travel Centre** is placed plumb in the middle of the restored 19th Century railway station. It has neither the somewhat temporary quality of so many of the post-war insertions into our great stations, nor does it seek to repeat or copy the station itself; rather it is its own bold, tensile and joyful self, in scale with and a complement to the fine building in which it sits.

The Financial Times wishes to thank all the entrants for the time and trouble they took and to encourage them and the sponsors to keep up their high standards.

For a free copy of the illustrated Award brochure send a stamp addressed A4 envelope to: FT Architecture Award Brochure, Financial Times, Bracken House, 10 Cannon Street, London EC4P 4BY.

THE ARTS

Dagmar Krause/Elizabeth Hall

Andrew Clements

It has not been a good year for Brecht on the musical stage — Scottish Opera's *Mahagonny* and the National Theatre's *Threepenny Opera* do not leave many cherishable memories. But in the concert hall things have been much brighter, and Dagmar Krause's compilation of songs by Weill and Eisler at the Elizabeth Hall on Friday, until the title "Supply and Demand," was the brightest of all.

Krause's background has a polyglot component that suits this repertory perfectly: beginnings in Hamburg night-clubs, a gradual drift into progressive rock and experimental music with the likes of Henry Cow, Robert Wyatt and Michael Nyman, and in recent years the evolution of the Brecht evening she presented here. At a time when a number of rock musicians have attempted to colonise Weill, Krause's directness is immensely effective. She's faithful to the notes, sings almost all the correct pitches, yet still manages to inject more fire and fervour into the lines than any of those who treat the musical texts with reckless abandon.

If Milva's show at the Almeida earlier in the year represented the chic stylisation of Brecht, Krause is her precise antithesis: waif-like in her stage image, with jerky, nervous gestures that manage to combine toughness with vulnerability. Her hour-long programme gives as much weight to Eisler as Weill: rightly so, for the much more extensive collaboration of Brecht with Eisler is only beginning to be recognised in Britain as of comparable importance to the earlier and much more fêted partnership. The tunes may not be so catchy, but the lyrics emerges much more powerfully in Eisler's settings, and the weighting of words is infinitely subtle.

The rasp which Krause brings to her voice for some numbers might recall the late-Lenya sound that has become synonymous with much of Weill, but it is only one element in a wide range of colour applied on merit to each song. Too many memorable performances to list in detail, but Eisler's "Song of the Moldau," "German Misere" and "On Suicide," as well as the only non-Brecht settings in the programme, two songs from Eisler's exquisite *Songs about Love* cycle, were perfectly caught, as were the Weill "Barbara Song" and a version of "Surabaya Johnny" that dragged the last ounce of pathos from the lyrics in a totally unsentimental way. She was accompanied by a distinguished instrumental trio of Dave Heath, Danny Thompson and John Harle; Krause's compilation is already available on record, and if it captures just a quarter of the magnetism of her live performance it will be totally compelling.

John Lill/Barbican Hall

Dominic Gill

John Lill's continuing lunch-time survey of the complete Beethoven piano sonatas (there are three more recitals to come, on *December 5, 9 and 12*) arrived at the Hammerklavier on Friday. A large and enthusiastic audience arrived too for the event: and they will not have left disappointed.

Taking the opening two-octave leap with the left hand alone, as it is scored, is always a good sign—it establishes the element of risk that the performer is prepared to take from the start. And from that gesture, too, uncurling like a spring, Lill established a relentless forward momentum, surging without hesitation to the movement's final page. It was a most impressive beginning, articulated with the greatest clarity, which broke like an immense wave, and then withdrew, leaving the scherzo to emerge fresh and crystalline, delicately supercharged.

Lill's account of the Largo of op. 10 no. 3 was one of the best things in the opening recital of his series; and likewise the great slow movement of the Hammerklavier—the sublime and majestic hub around which all else revolves — had fine dramatic presence, and a lyrical unfolding of remarkable firmness and eloquence. Elsewhere, as I remarked before, what Lill decides to inflect expressively, and what he decides to leave uninflected, can still occasionally be something of a mystery. But here the effect was restrained without ever seeming constrained: a real *adagio sostenuto* delivered with perfect expressive simplicity; the bell-like *mezzo voce* of the last page was uncommonly haunting.

Ideally, perhaps, I prefer a Hammerklavier finale that is a shade fiercer than Lill's, with more sense of struggle to it, and which proposes therefore a more *titanic sense* of resolution. But his performance had a powerful cogency none the less, and was never tame, though the resolution was calmer; and the clarity of the delivery was exceptionally potent — I have rarely heard a Hammerklavier fugue so clearly structured in which so many of the notes, at every level of the counterpoint, were so clearly audible.

Arts news in brief...

Baron Thyssen has announced that the design submitted by British architect James Stirling has been chosen for the new gallery to house the Thyssen-Bornemisza collection at the Villa Favorita, Lugano, Switzerland.

The new gallery will house late 19th and 20th century art and will connect to the existing gallery which has a permanent collection of old masters.

*

Placido Domingo returns to the London concert platform on December 17 at Wembley Arena, accompanied by the Philharmonia Orchestra, conducted by Luis Garcia Navarro, with soprano Rosario Andrade as his guest.

*

Rudolf Nureyev, 48, who this summer celebrated the 25th anniversary of his defection from Russia, returns to the British stage this week as Prince Siegfried in three performances of Tchaikovsky's *Swan Lake*, at the Palace Theatre, Manchester, from December 4 to 6.

*

The Allied Irish Bank is sponsoring the Abbey Theatre Company's production of *The Great Hunger* by Tom MacIntyre for its visit to the Almeida Theatre, Islington, until December 12.

*

Rula Lenska and Dennis Waterman appear in a new production of Tom Stoppard's *The Real Thing* at the Yvonne Arnaud Theatre, Guildford, until December 13 prior to touring Australia after Christmas.

*

Clive Perry, director of Birmingham Repertory Theatre for 11 years, is to become director of the Pitlochry Festival Theatre in Scotland from April 1 1987.

FT Architecture at Work Award/Colin Amery

1986 winner achieved the right balance

This is the fifth year of the *Financial Times Architecture at Work Award*. It has been another good one, although it is probably true to say that the crop of buildings represents a generally higher than average dedication to the raising of design standards in the work-place. Our jury, Richard Rogers (until August), Edward Cullinan and Lord Gibson, states clearly in its report that "they were encouraged by the care and quality that many companies are now seeking in their company headquarters." But this year the choice has not been easy as no one scheme stood head and shoulders above the others. For 1986 the jury has decided to commend four schemes and to give the Award to one unusual project that "is particularly inventive and responsive to its environment."

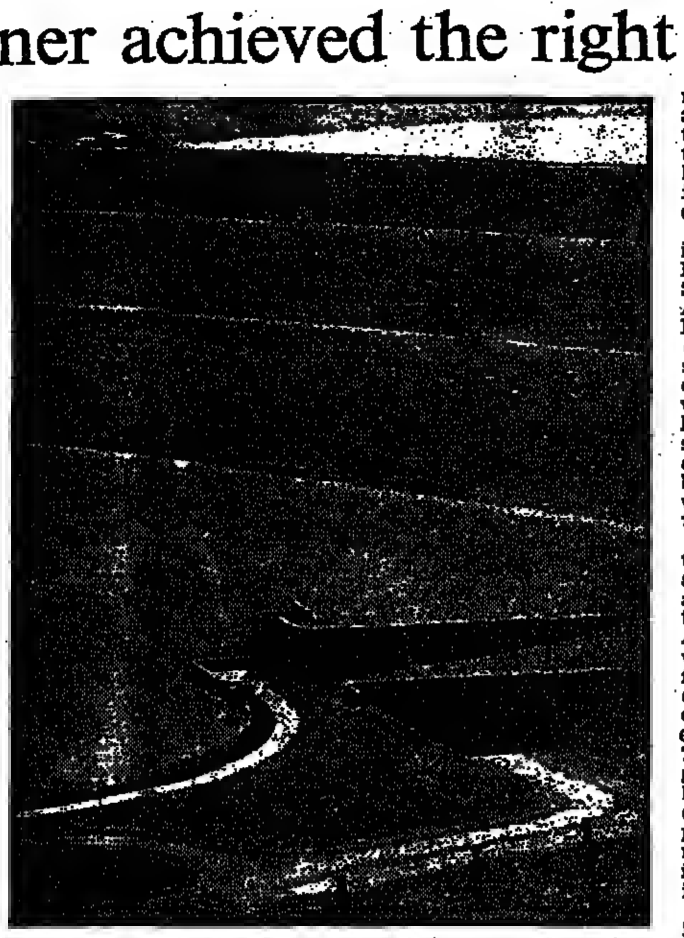
This year's winner is the Megget Reservoir and Control Building, near Selkirk in Scotland. It is much more than simply an architectural solution and the architects, W. J. Cairns and Partners, worked in complete partnership with the engineers, R. H. Cuthbertson and Partners, for their clients, the Lothian Regional Council.

The watery lowland valleys of the Lothians demand sensitive landscape treatment. In this scheme the dam is the major element in the landscape and many of the necessary control functions are carried out in plant rooms that are below the surface of the water. The entrance to the site, the portal in the hillside and the entrance to the control building are all carried out in the local drystone vernacular.

By any standards the construction of the reservoir was a major project, costing some £48m. Work started 10 years ago to build the highest impounding embankment dam in Scotland which, now finished, is more than 180 ft (56 metres) high and stretches for a third of a mile across the valley.

The face of the dam on the upstream side is faced with rock and on the downstream side is sown with grass. The effect of this grassy curtain edged with planting is to soften the dam's visual impact. The draw-off and overflow tower visible at its top was also liked by the jury, who felt it had a kind of simple modern elegance. But it has to be admitted that the greatest achievement of this huge engineering scheme is that it achieves a balance with its immediate environment. It is the care that has been taken to combine all the large-scale elements and relate them to the surroundings. They are good in the details of their design and as large elements in the total composition.

The main reason for this scheme winning is because of its responsiveness to the environment, achieving the right kind of balance between the man-made and nature. It is the demonstration of the levels of care and control in the environmental interest as well as the engineering skills that made it a natural choice for the Award.



The Megget Reservoir, Selkirk, Scotland

Such care and concern is what is needed in the inner city and everywhere that man's activities dictate the shape of his environment.

The FT Award was founded to promote a higher level of environmental concern in all kinds of places where people work. The care the architects and engineers have taken at the Megget Reservoir makes it a very worthy winner of the 1986 Award.

*

A sports centre, an office building, a supermarket and a railway building are the four projects commended by the jury. The West Swindon Leisure Centre, now known as the Link Centre, was designed by the Thamesdown Borough Council Architects department, with Anthony Hunt as the engineer.

It contains a remarkable number of disparate activities and this is reflected in the somewhat agreeably ad hoc nature of the architectural solution. The county council provided a library, offices for trading standards as well as social services and counselling. The borough council provided an ice rink, a multi-purpose hall, a swimming pool, squash courts, snooker tables, health club and facilities for the arts and crafts. There are also a large number of rooms for social clubs, meetings and mothers and children.

The jury commended the Link Centre for "its assymetrical composition or many varied elements under the great canopy of the suspended rectangular and mono-planar roof."

There was a great deal of enthusiasm for this whole scheme, especially as it was clear to see that it was a highly successful venture — crowded and energetically used but standing up to all comers. The materials used and the bright colours contributed to a vigorous place and one clearly enjoyed by those using it. It was not awarded the prize because the speed of construction did seem to have led to some inconsistencies in details and junctions.

In Canterbury the assessors were favourably impressed by the lively design of the Sainsbury's supermarket. This was the result of a competition and was designed by Ahrends, Burton and Koralek with the engineers Ernest Green and Partners. It is a powerful representative of an organisation keen to raise architectural standards for a type of building which is, by its nature, difficult to fit in to the environment.

At Canterbury the architects have succeeded in creating an elegant roof structure that the jury considered to be a complement to the cathedral. The store looked brilliant and sparklingly clean when the jury visited it. The members considered the outside to be a powerful and elegant design. Some reservations were expressed about the less attractive rear elevation and the rather ordinary back-up and staff areas of the shop. The high standard of the design of the main elevation and roof did not, in the jury's view, extend to all parts of the scheme.

Again it was the imaginative and elegant response to a fairly mundane building type on a sensitive city site which won the jury's respect—in particular the decision not to adopt the historical pastiche too often favoured by supermarket designers.

The Sun Alliance office building at the Southwater Business Park in Lennox Wood, Horsham, Sussex, was designed by Michael Aukett Associates, with Anthony Hunt Associates as the engineers. It stands in a dramatic setting — a new country park created from a derelict brick-works with some beautiful lakes. Because it is a high security company building, full of computers, a solution had to be found to the siting that would both protect and enhance the premises.

The solution was a tried and tested one for country houses, a pavilion set on a plateau with a ha ha around it to conceal the discreet security fencing. A simple steel framed structure with external *brise-soleil* makes for an elegant, simple and well detailed pavilion. The jury considered that it made for "an excellent working environment." The views from the offices are good and the device of a top lit central spine to the building does bring light into a deep plan set of offices. The environment of large computer suites is not easy to design. Here it is well done.

A small addition to an existing major railway station wins the fourth commendation of the jury. It is at Newcastle and is a new Travel Centre, designed by the British Rail regional architect working from the chief architect's office in York. As a solution it deals with a lot of problems that occur frequently. Newcastle Central Station is a Grade II* Listed Building, designed in the late 1840s by John Dobson. It has immensely long curved platforms and apparent acres of cast-iron arches. The Travel Centre is designed as a contrast to the 19th-century station and had to fit within a height restriction to preserve the profile of the Victorian roof.

The jury liked its independence and simplicity in the detail of the glass and structure, feeling that the centre, "has neither the somewhat temporary quality of so many post-war insertions into our great stations, nor does it seek to copy the station itself; rather it is its own bold tensile and joyful self, in scale with and a complement to the fine building in which it sits."

It has been an excellent year for the high general level of architectural quality. The jury looked at all types of new buildings from starter units to large-scale science parks. From Enterprise Zones to water works there exudes an air of architectural confidence. The message that the FT Award has always promoted, that good architecture and environmental carefulness also means good business, seems to have had an impact. It has been particularly encouraging that this message is clearly understood by those starting up small businesses: good architecture pays dividends.

A Mouthful of Birds/Royal Court

Michael Coveney

The Bacchae is a great play that changes colour every day. Dionysiac ecstasy is easily interpreted as hysteria emanating from a cult of violence. In the past two decades, the orgiastic impulse has been claimed as a moda of free theetrical expression. Now Joint Stock, in this fascinating cabaret, scripted by Caryl Churchill and David Lan, directed by Ian Spink and Les Waters, grapple with the underside of urban aspiration while risking total poetic resettlement of Euripides.

Nobody who has complained about old-fashioned textual values and naturalistic settings at the Royal Court can complain about this. The tree on which Dionysius catapulted Pentheus to rocky oblivion is built into a split level design (by Annie Smart) where a bored telephonist, an acupuncturist, a swinging vicar ("I don't believe God is necessarily male"), the weight-lifting unemployed and the betrayed with secretary make their excuses and levitate. Forming a Pina Beusch chorus line of scratching, fiddling and ear-pulling gestural uniformity, they are possessed and transported to a *stranger plane of existence*.

Miss Churchill in particular is pushing her switchback, sex change, political style of *Top Girls* and *Cloud Nine* into a new dimension, taking on board performance art and new dance patterns as well as the classic repertoire.

A rape becomes a maternal *coddle*; a son becomes a rapist. Dionysus, a household god, is seen tumbling through a window frame in dread locks and underskirt. The inhabitants reassess their lives and re-form, again in imitation Bausch, for a libation and licking-of-hands routine.

The already famous pig ballet shows the domestication of a sexy porker by a foreign businessman: "Pig O' My Hearth" perhaps, but an ingenious extenuation of Euripidean bestial reference and transformation. The pig conks out and is resuscitated (cured ham, no doubt) and, picking up a table in his teeth, seems anxious to prove these are graces of bacon. The interlude is a delight, brilliantly executed by Philippe Giraudeau and Stephen Goff.

The dismemberment of Euripides corresponds to the dismemberment of Pentheus by his own mother, that scene moulded into scenes of psychic revenge, reports of casual mutilation, urban madness and knife attacks. The curative powers of alternative medicine, magic and social commitment, are inventively mocked.

The production, noticed here by Martin Hoyle when premiered at the Birmingham Rep, is odd but compulsive and, above all, it is performed with quite tremendous conviction and éclat. A reading of the script (£1 from Methuen) is recommended. But so is your participation in an event that, for all its maddening opacity, is in fact a genuine experimental departure of physical bravery and intellectual validity. The other actors, all excellent, are Tricia Kelly, Dona Croll, Christian Burgess (unemployed Derek and transvestite Pentheus), Vivienne Rochester and Amelda Brown.

Alastair Muir

Philippe Giraudeau and Stephen Goff

The Bernoulli Effect/Oval House

Martin Hoyle

The women's theatre company Burnt Bridges is in residence at the Oval House in Kennington, across the road from an even more famous area. They are assisted by Lambeth Arts Council; given that the borough's sole answer to rutted roads and pitted pavements is the erection of signs inanely welcoming us to a nuclear-free zone, one must concede that there are madder things to spend public money on.

As with their previous "theatre piece," a futuristic and stylish look at women in the Stock Exchange, the company has the advantage of Julian Cripps's striking set. White canvas covers the floor, its scalloped edge drawn up in irregular shapes against the back wall, one great batwing outline pulled taut overhead.

Three stalwarts of the company are joined by two new faces and three musicians for a slightly muted exercise on the themes of gravity and flight. Birte Pedersen, who also directs, no longer comes on like Lady Macbeth, her bloodlust up; Helena Paul has no chance to emit that glint of humour that transforms her English rose into a St Trinian's Old Girl. As ever, a mainly visual work is meticulously rehearsed and intelligently thought out; but for once a lack of substance shows.

Once again, an outsider is seen being instructed (here unsuccessfully). The activity in question is flying. The Bernoullis were a family of mathematicians and inventors who discovered the principle of aerodynamics a century and a-half ago. The first part of the 60-minute show consists largely of suspended figures rising, falling and swinging. Speech is confined to monologues for Miss Paul, notably on albatrosses and swifts. The latter fly desperately fast, unable to descend easily, in an attempt to soothe the irritation caused by parasites. Camilla Saunders's music is both instrumental (including wineglass rims) and vocal (humming, chattering; wordless song). An intriguing but slight evening.

Petteri Salomaa/New Zealand House

Andrew Clements

The distinguished line of baritones and basses that has emerged from Finland is continued in the person of the young baritone Petteri Salomaa. He gave his first London recital last Thursday, accompanied by Richard Mapp, at New Zealand House: the event was one of the fruits of a cultural exchange programme currently in full spate between New Zealand and Finland.

The archetypal Finnish male voice is big, black and sonorous. Salomaa's is not at all like that; though his physique may yet fill out into the imposing frame that traditionally accompanies such a sound, his tone is light and flexible, but still capable of an impressive extension into the lower reaches of the bass cleff. His short programme began a little uncertainly with "Leave me, loathsome light" from Handel's *Semele*, taken with a very measured gait and never moving with assurance. But two groups of songs to Swedish texts, the first by Erik Bergman, the second by Sibelius very quickly showed his truer characteristics.

The effortlessly sustained flexibility was much in evidence in Sibelius's "Demanten pa marssnoen;" in Bergman's "Serenad" and "Si droemmaren kommer deer" Salomaa's instinctive dramatic sense and ability to inject theatrical tension into lyrics without a trace of histrionics, lifted what are ordinary enough settings into highly characterful pieces. Of a Schubert selection it was "An den Mond" that emerged most completely realised, carefully turned and beautifully suave. The last traces of nervousness were only totally dispelled in some arranged Ostrobothnian folksongs with which Salomaa closed his programme; vigorous melodies delivered with panache and generous helpings of sturdy tone.

Arts Guide

November 28-Dec 4

Music

VIENNA

Bruno Philharmonic Orchestra: Beethoven. Musikverein (Mon).

Gwyneth Jones song recital with Geoffrey Parsons, piano. Schubert, Wagner, R. Strauss, Berg. Musikverein (Wed).

Musica Antiqua. Clemencic Consort led by Rene Clemencic. Musikverein (Thur).

NETHERLANDS

Rotterdam, De Doelen. Recital Hall: Fortune's Fire Lute Song Ensemble led by Carl Shavitz, lute, with Julian Pike, tenor, and Julia Hodgson, viola da gamba: Bartlett, Jones, Corkine, Greaves, Dowland, Ferrabosco (Mon). Concerto Rotterdam string ensemble conducted by Heinz Friesen, with Hans Roelofsen and Rudolf Senn, double bass: Bottesini, Rossini (Tue). (414 29 11).

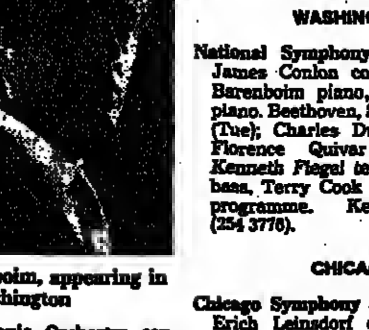
Utrecht, Vredenburg. The Hague Philharmonic conducted by Heinz Wallberg, with Zino Vinnikov, violin: Dvořák (Tue). (31 45 44).

The Netherlands Chamber Choir conducted by Peter Phillips with works by Phillips, Byrd, Bull, Purcell. Mon in The Hague, Oud-Katholieke Kerk, Tue in Amsterdam, Waalse Kerk (020-82 51 99).

Groningen, Oosterpoort. The Netherlands Wind Ensemble and the Netherlands Chamber Choir under Lucas Vis: Wagemans (Tue). (131044).

LONDON

Philharmonia Orchestra conducted by Bernard Haitink. Brahms. Royal Festival Hall (Mon). (928 3191).



Daniel Barenboim, appearing in Washington

Royal Philharmonic Orchestra conducted by Kurt Masur with Kyung Wha Chung, violin. Beethoven and Prokofiev. Royal Festival Hall (Tue).

BBC Symphony Orchestra conducted by Sir John Pritchard with Dmitri Alexeev, piano. Prokofiev and Shostakovich. Royal Festival Hall (Wed).

London Philharmonic conducted by Semyon Bychkov with Radu Lupu, piano. Panufnik, Mozart and Mendelssohn. Royal Festival Hall (Thur).

NEW YORK

New York Philharmonic (Avery Fisher Hall): Zubin Mehta conducting, Murray Perahia, piano. Beethoven, Bruckner (Thur). Lincoln Center (874 2424).

The New Sol Canto (Federal Hall): Shelly Hirsch performs a mixed repertoire, showing off a voice that ranges in sound from the Peking Opera to a broken radio, as part of the lunchtime concert series for the Wall Street area. (Mon, 12.15). (Wall & Nassau Sts. 289 0320).

WASHINGTON

National Symphony (Concert Hall): James Conlon conducting, Daniel Barenboim piano, Rudolf Firkusny (Tue); Charles Dutoit conducting, Florence Quivar mezzosoprano, Kenneth Riegel tenor, John Cheek bass, Terry Cook bass. All-Berlioz programme. Kennedy Center (254 3776).

CHICAGO

Chicago Symphony (Orchestra Hall): Erich Leinsdorf conducting, Dale Clevenger horn. Mozart, Hindemith, Mozart, Ravel, Chabrier (Thur). (435 6111).

TOKYO

Interlink Festival of Contemporary Music. Compositions by American composers Harvey Sollberger, Terry Riley, Lee Breuer (Mon); Mario Davidovsky, Roger Reynolds, Harvey Sollberger, John Marby (Thurs). Asahi Hall, Mullion Bldg. Yurakucho, near Ginza (363 0151; 237 9900).

Merkin Hall (Goodman House): For the Love of Music. Pamela Mia Paul piano, Richard Sortomme violin, Warren Lash cello, David Shifrin clarinet. Weber, Rachmaninov, Debussy, Ravel (Tue); Grant Johannesen piano recital with Ani Kavafian violin, Timothy Eddy cello. Faure, Schumann (Wed). 67th w. of Broadway (362 8719).

Obituary/Cary Grant

Nigel Andrews

Cary Grant, the suavest, wittiest romantic lead in the cinema's history, who died yesterday aged 82, had the *unlikeliest* background for a Hollywood film star imaginable. Born Archibald Leach in Bristol, England, in 1904, he arrived on the West coast of the United States in 1932 with experience as a circus acrobat and minor English musical star; that, plus an accent that was untraceable then and remained untraceable. A sort of clotted, high class cockney, it could both charm and wisecrack. It was legal tender in sinister thrillers and screwball comedies. That voice proceeded, together with his good looks, manly cleft chin and impeccable grooming, to mark Grant out as the leading man every leading lady wanted.

In his first three years in Ho'ywood he co-starred with Marlene Dietrich (*Blonde Venus*); Mae West (*She Done Him Wrong* and *I'm No Angel*) and Katharine Hepburn (*Sylvia Scarlett*).

The fate that befalls so many male romantic leads—becoming animated clothes-horses or glorified escorts—never befell Grant because in any film of any genre he gave as good as he got. His greatest decade was from 1937 to 1947, when he excelled in movies as diverse as *The Awful Truth*, *Bringing Up Baby*, *Gunga Din*, *Only Angels Have Wings*, *His Girl Friday*, *The Philadelphia Story*, *Suspicion* and *Notorious*.

If one had to pick a single film to demonstrate Grant's range it would be Howard Hawks' *Only Angels Have Wings*. He played a hard-bitten, tough guy aviator leading a team of broken-backed pilots deep in the jungle. It was a Humphrey Bogart style part and Grant played it as if born to it.

Though Grant's voice is legend, less legendary, but no less remarkable, was his physical prowess as an actor. In high comedy his stoop, his birdlike features, his long, slightly bow legs, could turn him into a human question mark, elastically forming and reforming as the plot became ever scattier. But put him in a serious, more sinister role for Hitchcock and that lean, stooped suavity could become something ominous, dark, even predatory.

When he retired, the movie world mourned. When he reached 80, the movie world celebrated this landmark birthday. America's leading cinema magazine *Film comment*, slapped him up on their cover for *their* 100th issue, and devoted a lead article to him. Its author called Grant "the best and most important actor in the history of cinema." For those who believe that film acting at best is an art in its own right and no relation to stage acting—that subtlety, texture and adaptability are more important than projection or over-emotion—it is a verdict hard to disagree with.

DIARY DATES

Finance

The following is a record of the principal business and financial engagements during the week. The board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—
Britannia Security, Charing Cross Hotel, The Strand, WC, 12.00
Brown (Charlie) Car Part Centres, Queen's Hotel, City Square, Leeds, 12.30
Kleinwort Devpt. Fund, 20 Fenchurch St., EC, 11.45
London and St. Lawrence Inv., Dunster House, 17-21 Mark Lane, EC, 12.30
Paterson Zochonis, Piccadilly Hotel, Piccadilly Plaza, Manchester, 12.00

BOARD MEETINGS—
Finals:
AE
Borthwick (Thomas)
Dundee and London Invest Trust
Polly Peck
Trafalgar House
Interims:
Arlen
Chamberlin and Hill
Chelsea Man
Creighton Laboratories
Drummond
Lyston
Marling Inds
Norton Opax
Pieton Intnl
Stirling
TR Natural Resources Invest Trust
Zygal Dynamics

DIVIDEND & INTEREST PAYMENTS—
Agricultural Mort Con. 4½pcDb 1961-69 2¼pc
Alisa Invst. Tst., 5pcPf 1.75p
Allied Dunbar Int. Funds Pf 0.443136cts.
American Brands 62cts.
American General Cpn. 28cts.
Baker Perkins 6½pcDb 1981-86 3¼ pc
Barratt Cpn. 18¼pc 1987 9¼ pc
Burnley (Borough of) 13pc 1987 6½pc
CNA Gelle 5pcPf. 5cts.
Canning (W.) 1.2p
Casket (S.) 1.4p
Cater Allen 5pcPf. 1.75p. 4.2pc2ndPf. 2.1p
Celtic Haven 0.5p
Citicorp NV 11½pc 1988 5¾pc
Continental and Industrial Tst. 6½pcPfd 5p
Croda Intnl. 3p
Delta 2.6p
East Surrey Water A 7pc 3.5p. Do. C 3.5pc 1.75p. Do. B 4.0pc 2.45p. Do. 3.5pcPf. 1.75p Do 42pcPf 1985-90 21p 5.5pcPf 1.75p. 4.2pcPf. 1985-90 2.1p. 5.6pcPf. 1092-94 2.8p
Ellis and Goldstein Pf 1.05p
English China Clays 7pcLn 1998-2003 3½pc. 7½pcLn 1993-98 3¾pc
Ensearch Cpn. 20cts.
Erith 1.3p
European Coal and Steel 6½pcBds 1965 3¼pc
Fleming Mercantile Tst. 4¼pcDb 2¼pc
Ford Motor 65cts
Foreign and Col. Invst. 4¼pcDb. 1982-87 2¼pc. 4¼pcDb 2¼pc. 7¼pcDb 1989-94 3⅝pc
Fothergill and Harvey 2.75p
Fulton Y4. EOR Br. Y4
Fuller Smith and Turner 7¼pc1stDb 3⅝pc
Garton Eng. 1p
General Cons. Invst. Tst. 4½pcA£1 1.4875p
[illegible]

Portsmouth Water 3.5pc 1.75p
RPH 4pcPf 1.4p. 8pcPf 2.[illegible]
RMC 8p
Raine Inds. 0.606p
Rand (Austin) 2p
Reed International 4½pcPf [illegible] Pf. 1.925p
Rickmansworth 3.5pc 1.75p
Sea and Prosser 12.62p
Scott and Robertson 1p
Scottish Agric. 7¼pcDb 3[illegible]
Scottish Mort. Tst. 3.5p
Scottish Television 3p
Secs. Tst. of Scotland 7p
Shell Intnl. Fin. 8pcLn 4[illegible]
Southampton Harbour Board [illegible] 1990 6½pc
Southampton Harbour Board [illegible] 1990 3¼pc
Standard Tst. 8½pcDb 198[illegible]
Stock Exchange 7¼pcDb 19[illegible]
TR Australia Invst. Tst. 5[illegible]
TR Trustees 4½pcPf 1.575p
Technofan SA FF 4
Telcse Eastern 25cts.
Tod 8p
Transcanada Pipelines 16pc [illegible]
UEI 2.1p
Union Carbide 37.5cts.
Utd. Doms. Tst. 6¼pcDbs. [illegible]
USLIFE 30cts.
War 3½pcLn 1¾pc
Watney Mann Truman 4[illegible] 2¾pc. 6½pcDb 1987-90 [illegible] 1988-95 3½pc
Western Mining Cpn. 2cts.
Whitbread 6¼pcDb 1987-9[illegible] Db 1986-91 3¼pc
Wiggins Teape (UK) 6¼pc2[illegible] 3¼pc
Wright (John) (Weaving) 4[illegible]
Young and Co's Brew. 6½[illegible] 1989 3¼pc

TOMORROW

COMPANY MEETINGS—
Bryant, Cranmore House, [illegible] Boulevard, Solihull, West [illegible]

BOARD MEETINGS—
Finals:
Anglia Secure Homes
BOC
Beatrix Mines
Grootvlei Proprietary Mines
Harvard Securities
Marievale Cons Mines
St Helena Gold Mines
West Rand Cons Mines
Interims:
Argyll Group
Atkins Bros (Hosiery)
Buffelsfontein Gold Mining
CH Inds
Cape Inds
County and New Town Pro[illegible]
Evans of Leeds
FKI Electrical
General Electric
Illingworth Morris
Jarvis Porter
Michael (John) Design
Monks and Crane
Premier Cons Oilfields
United Leasing

DIVIDEND & INTEREST PAYMENTS—
[illegible]

WEDNESDAY DECEMBER 3

[illegible]

THURSDAY DECEMBER 4

[illegible]

FRIDAY DECEMBER 5

[illegible]

SATURDAY DECEMBER 6

[illegible]

MONDAY DECEMBER 8

[illegible]

DIVIDEND & INTEREST PAYMENTS—
Illingworth Morris (Saltaire) 7pcPf 1.225p
Racal-Chubb 8pcLn 1992-05 4pc. Do. 8½pcLn. 1987-98 4¼pc
Town and City Props. 7½pc1stDb 1997-2002 3¾pc

Trade fairs and exhibitions: UK

Current
Royal Smithfield Show (01-235 0315) (until December 4) — Earls Court
December 2-4
International Trade and Services Exhibition and Conference (01-727 1929) — Barbican Centre
December 3-5
Mining Methods Exhibition (0923 77831) — Harrogate
December 9-10
UK Tax Congress/Tax Fair (04868 21231) — Wembley Conference Centre
January 7-11
London International Boat Show (0932 54511) — Earls Court
January 8-11
Holiday and Travel Fair (021-780 4171) — NEC, Birmingham
January 10-15
Harrogate International Toy Fair (01-226 6653) — Exhn. Centre, Harrogate
January 15-18
Antiques Fair (0447 2514) — Kensington Town Hall
January 18-22
International Light Show (06884 656) — Olympia
January 22-25
Ideal Home Exhibition (0202 296275) — Metro Exhibition Hall, Brighton

Overseas

Current
International Agricultural Equipment Services and Technology Exhibition (01-891 5061) (until December 2) — Beijing
November 29-December 7
Handicrafts in the Domestic Sphere Exhibition — Heim & Handwerk (01-486 1951) — Munich
December 4-7
Autumn and Winter Ready-to-Wear Fashion Fair—PORTEX (01-493 0212) — Porto
December 4-7
ICAF/LA 86—International Contemporary Art Fair (01-486 1951) — Los Angeles
December 8-13
International Chemical Industries Exhibition—INTERCHIMIE (01-439 3964) — Paris
December 9-14
International Home Improvement Techniques Exhibition — AMELBAT (01-439 3964) — Paris
December 10-16
International Food, Pharmaceutical Processing and Package Exhibition (01-236 2399) — Guangzhou
January 12-15
Middle East Electronics Communications Show and Conference—MECOM (01-486 1951) — Bahrain
January 13-18
International Furniture Fair (01-930 7251) — Cologne
January 15-18
Travel Exhibition (01-486 1951) — Helsinki

Business and Management Conferences

December 1-2
FT Conferences: World Telecommunications (01-621 1355) — Hotel Inter-Continental, W1
December 2
The Royal Aeronautical Society: The Airports Act—its effect on the air transport industry and users (01-499 3515) — 4 Hamilton Place, W1
December 3-4
British Venture Capital Association/FT: Venture capital financial forum (01-621 1355) — Hotel Inter-Continental, W1
December 4
Institute of Directors: Effective remuneration, current practice—future trends (01-839 1233) — 116 Pall Mall, SW1
December 5
The Institute for Fiscal Studies: The Future of European Community Finance (01-636 3784) — Park Court Hotel, W2
December 5
IBC: Back office systems after Big Bang (01-236 4080) — The City Conference Centre, EC3
December 8
IBC: Accessing the US equities market (09323 55244) — Inter-Continental Hotel, W1
December 8-9
Royal Institute of International Affairs: Energy 1986—lessons from turmoil (01-930 2233) — Chatham House, SW1
December 9
The Institute for Fiscal Studies: Privatisation and regulation (01-636 3784) — St Ermins Hotel, SW1
December 9
The Builder Group Building in partnership (01-353 2300) — Hilton Hotel, W1
December 9-10
Hawkedon Partnership: Subsea '86 Conference: Designing for Subsea; current and future trends (060884 252) — Heathrow Penta
December 9-11
FT Conferences: The twelfth world banking conference (01-621 1355) — Hotel Inter-Continental, W1
December 10
CBI: Finding money in Brussels (01-379 7400) — Centre Point, WC1
December 10
Business Briefings: New working patterns (01-381 1284) — London West Hotel, SW6
December 11-12
FT Conferences: World pulp and paper conference (01-621 1355) — Hotel Inter-Continental, W1
December 12
The Strategic Planning Society: Managing strategic decision making (01-235 0246) — 15 Belgrave Square, SW1
December 15
CBI/International Finance Corporation: Investment opportunities in developing countries (01-379 7400) — Centre Point, WC1
December 18
The Henley Centre for Forecasting: At the political and economic crossroads—which way will the UK turn? (01-353 9961) — Cavendish Conference Centre, W1
January 19
International Business Communications: Long-term finance for commercial property development (01-236 4080) — London Press Centre, EC4
January 21-23
IBC: Control accounting and taxation of bank risk (01-236 4080) — Cafe Royal, W1
January 27
Longman Seminars: Relief from Capital Gains Tax (01-242 4111) — Barbican Centre, EC2

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

Parliament

TODAY

Commons: Advance Petroleum Revenue Tax Bill, second reading. Norfolk and Suffolk Broads Bill, second reading. Debate on EEC documents covering emergency measures in the dairy sector.

Select committee: Public Accounts—subject: financial management initiative. Witnesses: Sir Peter Middleton, HM Treasury and Miss Anne Mueller, Management and Personnel Office, Cabinet Office (Room 16, 4.45 pm).

TOMORROW

Commons: Opposition debates on "the scandal of insider dealing" and "the misery of fuel poverty." Debate on EC documents relating to the multi-fibre arrangement.

Lords: Minors Contracts Bill, second reading. London Docklands Railway (City Extension) Bill, third reading. Unstarred question on speech therapists.

Select committees: Education, Science and Arts—subject: student awards. Witnesses: Education Department officials (Room 15, 10.45 am). Parliamentary Commissioner for Administration—subject: reports of the Health Service Commissioner. Witnesses: Wandsworth Health Authority and Dudley Health Authority (Room 5, 4.30 pm).

WEDNESDAY

Commons: Opposition Day—debate on the need for a select committee of privy counsellors to oversee the security services, followed by a debate on defence. Late debate on EC document relating to research and technological development.

Lords: Debate on Britain's defence capability, and the case for retaining the nuclear deterrent.

Select committees: Scottish Affairs — subject: hospital provision. Witness: Common Services Agency (Room 19, 11 am). Employment — subject: the work of the department of Employment group. Witnesses: Lord Young, Employment Secretary, and Mr Kenneth Clarke, Paymaster General (Room 8, 4.15 pm). Social Services — subject: primary health care. Witnesses: British Medical Association; Pharmaceutical Society of Great Britain (Room 21, 4.15 pm). Environment — subject: Property Services Agency. Witnesses: Sir Nigel Mobbs, Lord Chancellor's Department and officials (Room 20, 4.30 pm). Committee on Unopposed Bills — River Humber (Burcom Outfall), and the Mersey Docks and Harbours.

THURSDAY

Commons: Remaining stages of the Advanced Revenue Petroleum Tax Bill. Motions dealing with Northern Ireland business.

Lords: Recognition of Trusts Bill, second reading. Ministry of Defence Police Bill, second reading. Broadcasting Bill, second reading. Unstarred question on Wytch Farm.

Select Committee: Agriculture — subject: effects of pesticides on human health. Witness: British Agrochemical Association (Room 16, 10.45 am).

FRIDAY

Commons: private members' motions.

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus *) have been officially notified. Dividends to be declared will not necessarily be at the amounts in the column headed "Announcement last year."

	Date	Announcement last year
*Assoc Paper Inds	Dec 10	Final 4.0
*BOC	Dec 11	Final 5.63
*BT	Dec 11	Interim 3.0
*Bass	Dec 4	Final 11.0
*Charter Cons	Dec 10	Interim 3.75
*Dee Corp	Dec 11	Interim 2.8
Debson Park	Dec 9	Final 3.31
*English China Clays	Dec 15	Final 7.0
*GEC	Dec 2	Interim 1.4
Granada	Dec 11	Final 4.57
*Grand Metropolitan	Dec 18	Final 8.0
*Greenall Whitley	Dec 8	Final 2.853
GUS	Dec 12	Interim 7.0
Greycoat	Dec 12	Interim 0.95
*Hanson Trust	Dec 4	Final 2.86
*Johnson Matthey	Dec 4	Interim 0.5
London Merchant Securities	Dec 18	Interim 0.75
*Meyer Intl	Dec 8	Interim 1.95
Norcros	Dec 10	Interim 2.8
*Northern Foods	Dec 3	Interim 4.26
*Pilkington Bros	Dec 11	Interim 5.0
Polly Peck	Dec 2	Final 3.75
RHP	Dec 12	Final 1.6
Rothschild (J.)	Dec 17	Interim 2.2
*Royal Bank Scotland	Dec 12	Final 8.0
*Saatchi and Saatchi	Dec 4	Final 8.71
Siebe	Dec 11	Interim 4.08
*600 Group	Dec 4	Interim 2.34
*Smith and Nephew	Dec 3	Interim 1.4
Stakis	Dec 11	Final 0.8
Tate and Lyle	Dec 11	Final 14.5
*Trafalgar House	Dec 1	Final 8.1
*Vaux	Dec 9	Final 7.321
Whessoe	Dec 12	Final 3.0
*Wolverhampton and Dudley Brew	Dec 8	Interim 5.7

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

APPOINTMENTS

Burmah Oil finance chief

At BURMAH OIL Mr R. N. A. Wood has been appointed group finance director from January 1 and will be joining the board. From the end of 1981 until 1986, Mr Wood was chief executive of United City Merchants and was responsible for development of UCM's international businesses. In March he joined Dixons Group where he undertook a special assignment as deputy managing director of the main subsidiary, Currys.

★

Mr Tony Odhams has been appointed sales director of the Superseal division of KLEENEZE. He was general sales manager.

★

Mr Robert P. Wilson, head of planning and development at RTZ since January 1985, has been appointed a director of THE RIO TINTO-ZINC CORPORATION from January 1.

★

Mr John Sweet, currently managing some £450m as a senior fund manager with the Prudential, joined BALTIC TRUST MANAGERS, currently managing £20m, on December 1.

★

DOYLE DANE BERNBACH has appointed Mr John Ward as strategic planning director and promoted Mr Michael Bray as client services director. Mr Ward was previously deputy chairman of Aspect Hill Holliday.

★

Mr L. C. J. Brown, a partner in Pannell Kerr Forster, has been appointed a non-executive director of LONDON & ASSOCIATED INVESTMENT TRUST.

★

Mr Leonard A. Bishop, Mr James Freer and Mr Frederick J. Gardiner have been re-elected directors of ASEE EXHIBITIONS. Mr C. (Sid) Royle was elected a director. He is currently chairman of the Association of Supervisory and Executive Engineers.

★

Ms Lynne Farmer has been appointed a director of SOLER TOURISTE, *wholly-owned travel* subsidiary of UniChem. She was manager of the conference and incentives division.

★

Cr Federico A. Slinger has been appointed chairman of EURO-LATINAMERICAN BANK, London, and Mr Louis de Bièvre has been appointed vice chairman. Cr Slinger is chairman of Banco de la República Oriental del Uruguay and Mr de Bièvre is a member of the managing board of Algemene Bank Nederland.

★

Following completion of the sale of Courage by Hanson Trust to Elders IXL, the following changes to the board of COURAGE have been made: Mr A. R. Cotton, Mr J. J. S. Marshall and Mr P. J. Turner—all nominees of Hanson Trust—have resigned. Joining the Courage board, as chairman, is Mr John D. Elliott, chairman and chief executive of Elders IXL. Deputy chairman are: Mr Peter T. Bartels, managing director of Carlton and United Breweries; and Mr Andrew D. Cummins, group director strategy of Elders IXL. Also on the board will be Mr Ken R. Biggins, group director, administration and finance of Elders IXL, and Mr Peter W. Jonson as finance director designate. Mr Jonson *joins Courage from his current* role as genral manager, accounting, for Elders IXL. He will take up the post vacated by Mr N. M. Bryan who has resigned.

★

Mr Geoffrey Armstrong has been appointed chairman of the CONFEDERATION OF BRITISH INDUSTRY'S employment policy committee, in succession to Sir Alex Jarratt. Mr Armstrong is personnel director of Metal Box.

★

Sir Ronald Ellis has been appointed non-executive chairman of T. I. P. EUROPE, parent of all T. I. P. Trailer Rental's subsidiaries throughout Europe, and recently the subject of a £60m management buy-out from the Gelco Corporation of the US.

★

Mr David B. R. Smith is to be the new chief executive of DUNFERMLINE BUILDING SOCIETY. He is deputy chief executive, and takes over from January 1 following the retirement of Mr Walter Hutchison. Mr J. M. (Ian) Glover, secretary of the society, is to become deputy chief executive. Mr Kenneth W. E. Cowe, currently general manager (finance), also asumes the duties of secretary.

★

Mr Anthony Sweeten has been appointed managing director of T. S. HARRISON AND SONS in succession to Mr J. R. Henderson. Mr Sweeten was works director.

★

Mr R. N. Bowes has been appointed a non-executive director of MORGAN GRENFELL GROUP. He is a director and deputy chairman of Willis Faber.

★

Following the acquisition of Jetsave by the Greyhound Corporation the JETSAVE board is now as follows. The chairman is Mr Ron Blakey, vice-president and managing director, Greyhound Lines International. The other directors are Mr Chris Smart, managing director; Mr John Standley, sales and marketing director; Mr Martin Johnson, financial director (who is also financial director, Greyhound Lines International); Mr Geoff Medhurst, operations director; and Mr Michael Harding, company secretary.

★

Mr Tony Jarvis and Mr Brian Hendry have been appointed directors of TAYLOR WOODROW INTERNATIONAL from January 1. Mr Michael Walker will become a divisional director on the same date. Mr Jim Page, joint managing director, and Mr Roger Raikes are both retiring from the board of Taylor Woodrow International on December 31.

★

Mr Paul Battersby is the newly appointed managing director of SIMCARE. He returned to the UK from France in 1982 to join Eschmann, where he was appointed managing director in 1985.

★

Mr Frank J. Jones has been appointed deputy chairman of TELFORD DEVELOPMENT CORPORATION from December 1. He succeeds Mr John Parry who has retired. Mr Jones is chairman of the Shropshire District Health Authority.

★

Mr Hugh Lang, chairman of P-E International, is to join the board of B. ELLIOTT on December 1 as a non-executive director. Mr Lang is also deputy chairman of the Design Council.

★

Mr Robert S. Einzig, vice-president and treasurer of Transamerica Corporation, has been appointed a non-executive director of SEDGWICK GROUP.

★

BANQUE BELGE, London, has appointed Mr David Britton as a director of the bank. He will retain responsibility for *foreign exchange and treasury* activities in addition to his non-executive directorship of the bank's subsidiary, Quin Cope.

★

Mr Anthony W. More has been appointed general manager of THE NATIONAL COMMERCIAL BANK OF SAUDI ARABIA'S new London branch which has full licensed deposit taker status. The following appointments have also been made: Mr Colin M. Brumpton — manager treasury and foreign exchange department; Mr Rodney G. Bath — manager credit and marketing department; and Mr Jinx Graffey-Smith as European representative.

★

ACKROYD AND ABBOT has appointed Mr Barry Wilkinson as managing director of subsidiary Eric C. Flower, Sheffield.

★

The TWIL GROUP has appointed Mr Dilwyn Scrivens as managing director, Tinsley Wire (Sheffield). He was director and general manager. Dr Eddie Veys is appointed managing director, Rylands-Whitecross. He was director and general manager. Mr Alex Lawther becomes managing director, spring division. He was director and general manager.

★

BET has appointed as deputy finance director Mr John Griffiths, who joined the executive staff in September 1985, after BET's acquisition of Initial, where he was finance director.

Contracts and Tenders

ALGERIE - الجزائـر

MINISTRY FOR ENERGY AND CHEMICAL AND PETROCHEMICAL INDUSTRIES

National Company for the Refining and Distribution of Oil Products (NAFTAL)

National and International Notice of Sale of Equipment for the Construction of a Refinery

NAFTAL is selling the following Refinery equipment:
Eleven (11) Distilling Columns;
Forty (40) Heat Exchangers and Water Condensors;
Fifty-six (56) Air Coolers and Accessories;
Two (2) Transformers 60/5.5 KV and 29.2 KVA.

All this equipment was designed and manufactured by Italian companies.

Companies interested in the offer can write to NAFTAL, Direction Etudes et Developpement 132, rue de Tripoli Hussein-Dey, Algiers, or Telex to 65415 or 65416 to obtain specifications and details of viewing conditions of the above equipment.

Offers for all or part of the various items must be sent in two sealed envelopes to the above address within six (6) months following the publication of this Notice. The outer envelope should be plain and should read: "Avis de vente No. 01/86 DED équipements de Raffinage. Confidentiel ne pas ouvrir."

anep/alger

THE MINISTRY OF EDUCATION IN THE YEMEN ARAB REPUBLIC

Invites offers for

Printing and reprinting school text books, supply of equipment and chemicals for laboratories, teaching materials, white and coloured chalks, school furniture sets for primary, preparatory and secondary schools.

Particulars for the Tenders/Documents for the offers are available at the Yemen Embassy, 41 South Street, London W1, upon a non-refundable payment of the equivalent of US$100 for each part of the Tender.

Bids will be received by the Ministry of Education, Purchase Department, until the 31st December, 1986, and will be opened in public at 10.00 a.m. Sana'a local time on the 3rd January, 1987.

CONTRACTS AND TENDERS appear every MONDAY

CORPORATION OF LONDON

Barbican Centre

The Barbican Centre provides London with a major complex of Theatres, Concert Hall, Cinemas, Art Gallery, Public Library and Conference and Exhibition facilities. This prestigious complex is owned, funded and managed by the Corporation of the City of London.

CATERING CONTRACT

The contract encompasses 3 Public Restaurants, 1 Staff Restaurant, 11 Bars, 1 Wine Bar, Coffee Points, services to 2 Exhibition Halls and extensive function catering. Turnover in the year 1985/86 was circa £4.21m. The contract is for the provision of all catering services within the Centre for a five-year period commencing 6 January 1988.

The Corporation of the City of London will be inviting tenders for the provision of catering services. Established catering contractors should notify their interest in writing to:

The Director
Barbican Centre (CATCON)
Silk Street, London EC2Y 8DS
Notification to reach The Director by 12 December 1986

BUCKINGHAMSHIRE COUNTY COUNCIL
SUPPLY OF TELEPHONE SYSTEMS

Tenders are invited for the supply of a number of SPC based telephone systems for installation at various County Council locations over a 12 month period.

Requirements vary in configuration but will not exceed 25 exchange lines and 200 extensions (for systems of greater size individual tender exercises will be undertaken).

Invitation to tender documents can be obtained from:
The County Secretary and Solicitor,
Buckinghamshire County Council,
County Hall,
AYLESBURY,
HP20 1UA.

Tenders are to be returned by 12.00 noon on December 15th, 1986.

Legal Notices

IN THE MATTER OF TESE ME LTD.
AND IN THE MATTER OF THE CYPRUS COMPANIES LAW CAP 113

NOTICE IS HEREBY GIVEN that the creditors of the above-named Company, which is being voluntarily wound up, are required on or before the 2nd day of January 1987 to send in their full names, their addresses and descriptions, full particulars of their debts or claims and the names and addresses of their Solicitors (if any), to the undersigned Mr. Antony Hajiroussos, FCCA, of Juhs House, 3 Them. Dervis Street, P.O. Box 1612, Nicosia, Cyprus, the Liquidator of the said Company, and if so required by notice in writing from the said Liquidator, are, personally or by their Solicitors, to come in and *prove their debts or in default* thereof they will be excluded from the benefit of any distribution made before such debts are proved.

Dated this 1st day of December 1986.
A. HAJIROUSSOS, FCCA,
Liquidator.

COMMONWEALTH OF AUSTRALIA
Request for Tender

The Purchasing and Disposal Division of the Commonwealth Department of Local Government and Administrative Services is to dispose of Rolls Royce Meteor engines and spares. There are 110 of these V12 petrol engines for sale.
The Meteor is a derivative of the famous Merlin aircraft engine.
Special tools, testing equipment and spares for the engines make up 68 separate sale lots. Also on offer are Rolls Royce B80 and B40 engine spares, Morris engines and spares and David Brown Z51 gearboxes.
As the Commonwealth will never again sell such equipment, this is the chance to buy the following unique equipment.

Group A — 2 Froude OPYR E engine test bed dynamometers
Group B — 110 Rolls Royce Meteor MK 4B V-12 petrol engines
Group C — 75 David Brown type Z51 mechanical gearboxes
Group D — 10 lots of David Brown Z51 gearbox spares
Group E — 10 lots of Rolls Royce Meteor main engine spares
Group F — 10 lots of Rolls Royce Meteor magneto ignition spares
Group G — 10 lots of Rolls Royce Meteor fuel system spares
Group H — 10 lots of Rolls Royce Meteor lubrication system spares
Group J — 10 lots of Rolls Royce Meteor induction and cooling spares
Group K — 10 lots of Rolls Royce Meteor clutch spares
Group L — 10 lots of Rolls Royce B40 No. 1 Mk 5P engine spares
Group M — 10 lots of Morris USHNM MK 2/1 engine spares
Group N — 10 lots of Rolls Royce B80 No. 1 MK 2P engine spares
Group O — 4 lots of Rolls Royce Meteor special tools
Group P — 148 USHNM MK 2/1 engines

Inspection
All items can be inspected at:
Storehouse 35, 31 Supply Battalion
Bandiana, Victoria
from 8th to 12th December, 1986.

Tender Closure
Tenders will close in Sydney, Australia at 2pm Eastern Standard Daylight Saving time on 20th January, 1987.
Tender offers will only be received in the tender booklet, copies of which are available at A$10 each from:
Senior Trade Commissioner, Australian Trade Commission
Australia House, Strand, London WC2B 4LA, U.K.

FINANCIAL TIMES
BRACKEN HOUSE, CANNON STREET, LONDON EC4P 4BY
Telegrams: Finantimo, London PS4. Telex: 8954871
Telephone: 01-248 8000
Monday December 1 1986

Britain's EEC presidency

One month to go in Britain's six-month presidency of the EEC, and its record so far looks patchy. Achievements on the major issues of the Community agenda, especially reform of the Common Agricultural Policy, and swifter progress in scrapping national barriers to the Common Market, are very few to report.

Mrs Thatcher is pinning her hopes on two meetings this week to quicken the pace. The trade ministers, meeting in Brussels today, have a chance to approve a range of internal market measures and the heads of Government of the member states could lend their weight to faster progress at their summit in London at the end of the week. However, really significant results at this late stage of the UK presidency are probably too much to expect.

Great fanfare

When the British Government took over the chair from the Netherlands in July, its ambitions were decidedly modest. Those who spend their lives in the hot-house of the 12-nation negotiations in Brussels know full well that the Community is not an organisation which can suddenly change direction, or produce startling new initiatives. Efficiency and diplomacy were to be the hallmarks of the British term in office.

Back home, however, there has been a tendency to get carried away with public relations hype—the temptation to see the presidency as the chance to put one's stamp on Europe. A British initiative was launched with great fanfare to tackle unemployment, although it contains little more than familiar ideas. Much was made of the "rolling action programme" agreed with the Netherlands and Belgium (the next president) to co-ordinate 18 months' work to break the backlog of internal market barriers. There would be a new deal on airline competition as a key part of the process.

In the real world, the progress has virtually all been on other fronts: on the bread-and-butter of EEC life such as external trade negotiations, and the annual budget round; and on issues off the formal agenda, such as co-ordination of the fight against drugs and terrorism.

The tortoise-like movement on the internal market, in spite of redoubling the negotiating effort at official levels, has finally prompted Mrs Thatcher to send a personal pleo to her fellow heads of government. Without a determined political lead from the top, vested interests are always likely to prevail in this field.

One reason for the erratic quality of the British presidency has been the election of ministers chairing the respective council meetings. Mr Peter Brooke, for example, the Minister of State at the Treasury, has excelled as chairman of the Budget Council. Mr Alan Clark, the Trade Minister, has on the contrary, proved to be a poor choice for the delicate diplomacy required in the Internal Market Council.

The selection of air fares as a key issue for progress has proved precarious. Mr John Moore, the Transport Minister (another well-regarded chairman), has had to compromise on earlier radical hopes in order to get anywhere near agreement among the 12. He may end up by alienating his domestic audience while persuading his partners, with a deal that merely opens a crack in the air fares cartel.

In that case, the British have bent over backwards to be "presidential" and seek a compromise. In others, the Government seems to have used its position in the chair to be blatantly partisan. In seeking support for the British break in diplomatic relations with Syria, for example, Sir Geoffrey Howe offended many of his colleagues by apparently seeking to steamroller them into agreement.

Realities rule

The lesson, thus far at least, is that careful preparation and diplomatic negotiation are much more successful than rhetoric—and EEC realities almost always rule in the end. Thus it is very unlikely that the farm ministers will take any dramatic decisions on CAP reform this year, with the West German elections looming just round the corner in January, and Chancellor Kohl anxious about his farmers' vote.

Though dramatic progress cannot be expected, the British will nevertheless be passing on to their Belgian successors in January some solid groundwork on agricultural reform and the completion of the internal market. These two major issues must continue to dominate the Community's agenda until substantial results have been achieved.

Undoing the greenmailers

NOBODY much has a good word for greenmail, the American practice whereby a corporate raider drops a takeover bid in exchange for selling a strategic shareholding back to the potential victim company. Even the greenmailers do not care to admit to an activity that remains legal; and those who run the threatened company usually support the greenmailers' disavowals because they dare not admit that they are paying protection money to save their jobs.

Yet the greenmailers are reckoned to have extracted several billions from American industry since the habit took root earlier this decade. They are also raising the odds in the poker game by taking the fight closer to the corporate establishment. Sales of shares in the past fortnight by Sir James Goldsmith back to Goodyear Tire and Rubber and by Mr Ronald Perelman to the razor and consumer products group Gillette are estimated to have made profits for their respective consortia of $90m and $34m. The profits were, however, made at the cost of raising eyebrows in the US Congress. With Democrats now in charge of both houses, greenmail looks as likely a target for a draconian legislative onslaught as insider trading after the Levine and Boesky scandals.

Increased debt

This concern is understandable, for one of the chief consequences of the practice is to saddle large areas of American industry with more debt, while simultaneously reducing the amount of equity in issue. As Senator William Proxmire, the new chairman of the Senate Banking Committee, has pointed out, this is bound to inhibit investment in capital equipment, research and training.

Whether that means that takeovers in general should be made more difficult to carry out, as some proposals now under consideration on Capitol Hill demand, is another matter. For if corporate raiders and greenmailers have flourished of late, it reflects a failure of ownership quite as much as any flaw in the legal structure.

In so far as the corporate raiders have a defence, it lies in the assertion that shareholders, the real owners of the business, have failed to hold management properly accountable for the stewardship of the business. The barons of industry and commerce have thus been able to pursue size for its own sake, which in turn provides a justification for higher managerial pay and perks. Inefficient conglomeration is too often the result; deconglomeration, under the auspices of the corporate raiders, is one possible response to the problem.

The trouble with the argument is that so many corporate raiders are singularly implausible saviours of the conglomerates in question, particularly when they address relatively well managed companies like Goodyear. And when raiding turns to greenmail, the owners are heavily penalised because they receive less favourable treatment than the greenmailer and are left with an investment in a more heavily indebted company.

Legalistic habits

In Britain the worst excesses of takeover fever are avoided because the Takeover Panel's brand of self-regulation—which is, ironically, under increasing threat as legalistic American habits creep into London—prevents one group of shareholders being offered radically better terms than another in the course of a bid. Company law is less amenable to companies buying in their own shares. And the investment institutions are less prone to sell their shares to a corporate raider in the early stages of a bid because they are not constrained by any equivalent of America's Employee Retirement Income and Security Act (ERISA).

With a very different regulatory tradition it seems unlikely that the US would adopt similar solutions. But if the original problem lies partly with irresponsible ownership by investors, then there are plenty of ways in which the owners, as opposed to Congress, can respond constructively by calling management to account. That is the case for encouraging the trend whereby institutional investors demand changes in company bye-laws to prevent greenmail payments. Unlike most victims of protection, shareholders do not stand to suffer if the money is not paid over.

INSIDER TRADING

Doubts as the dragnet widens

By Clive Wolman

THE OFFICIALS of the Department of Trade and Industry, regarded for six years as the Inspector Clouseaus of insider dealing, are suddenly causing anxiety in the City.

Armed with new, tough investigation powers, the DTI has extended its enquiry beyond the illicit dealings of Mr Geoffrey Collier, Morgan Grenfell's ex-securities chief, to other suspects. From the corporate financiers in the City's panelled lunch rooms to the market-makers on the dealing floors below, the rumours ebb and flow about those implicated by Mr Collier or by Mr Ivan Boesky, the disgraced US arbitrageur who carried out many of his deals through the UK.

On Wall Street, the atmosphere has been transformed by the downfall of Boesky and the widening investigations of the Securities and Exchange Commission (SEC) into the relationships between the takeover arbitrageurs, investment banks and corporate raiders. Normally ebullient dealmakers have withdrawn into silence and the effect of a Congressional backlash against takeovers is expected to bite in the new year.

On both sides of the Atlantic, the crackdown is forcing the compliance officers of the securities houses to review their rule-books. Should corporate financiers consult their securities arms about an impending takeover bid? Should the companies involved in an impending bid be put on a "restricted" list to stop the market-makers and fund managers dealing in their shares—or would tha list merely alert miscreants? It is legitimate to trade on rumour or partial inside information, like seeing a company's finance director in a conference room with a mergers and acquisitions team?

As public concern at insider trading and other forms of City fraud has increased over the past year, attention has focused on the role of the DTI: is it capable of emulating the recent success of the SEC? Its past record must leave this in doubt.

UK insider dealers have so far had much less to fear from the regulators than their US counterparts. In the six years since insider trading was made a criminal offence, 110 cases have been referred to the DTI by the Stock Exchange—but only six have led to prosecutions against nine individual, all of them described by the Exchange as "small fish."

The DTI's problem is not a lack of activity to investigate; even Boesky considered London to be leakier than New York. In the first six months of 1986, according to the journal Acquisitions Monthly, the share prices of 19 UK companies showed a tell-tale increase of more than 20 per cent in the four weeks before the first announcement that they were *the targets of takeover bid.*

The DTI's chief handicaps are fewer people than the SEC and greater legal obstacles.

In addition, the SEC employs support teams of investigators prepared to pore for weeks through records of trading, private telephone calls, and bank accounts.

Since 1981, when Mr John Shad, the new SEC chairman, warned of a crack-down and prosecutions against insider dealing, the young lawyers he unleashed have become ever more creative in their interpretations of the poorly-drafted securities laws which, unlike the UK's, fail to define insider dealing explicitly. With one important exception in 1983, the SEC has been supported by the US judges, whose willingness to amend legal doctrines to fit new political pressures has not been matched by any English judge since Lord Denning.

This support is about to be tested at the highest levels as the case of a Wall Street Journal columnist reaches the Supreme Court. The columnist, Foster Winans, is facing imprisonment for trading on "inside" information in advance of publication of his column of company comment.

By contrast, the DTI investigators are almost entirely career civil servants. Both they, and two outside inspectors appointed in the Collier case, the first such appointment in an insider dealings probe, lack experience of the type of police investigatory work into fraud that is often required. The appointment of the outside inspectors reflects the DTI's new tougher mood. Up until now, the Department has been struggling along with only two or three professionals to investigate the 110 cases referred to it.

The identification of suspicious trades has not been an obstacle. The Stock Exchange's surveillance department, although lacking some of the automated computer monitoring devices of the US exchanges, keeps a close watch on unusual movements in price and volume, particularly in the period before a company announcement.

The most common problem has been proving that the individuals who carried out the trades were acting on inside information. Because the UK's Insider Dealing Act is less ambiguous than US legislation, there is less scope for finding creative interpretations of the law to catch miscreants. Also the burden of proof in a criminal action is high and the rules of evidence and procedure constricting. A provision to allow civil actions to be brought against insider dealers was included in a 1973 bill but failed to make the statute book.

In the US, on the other hand, the SEC's energies are focused on civil actions, which require a lower level of proof. Since 1984 it has been able to compel offenders to pay a penalty of three times their illicit profits, even in a civil action.

The most serious obstacles confronting the UK's investigators are the offshore trading accounts and companies used by the larger dealers. Since 1980, about 50 investigations by the Stock Exchange or the DTI have ground to a halt when they turned up nominee accounts where the account holder is not named in foreign banks or companies whose ownership is never disclosed.

The SEC has encountered fewer obstacles. Its greatest success in the 1980s has been in undermining the reputation of the Swiss bank account as the most confidential medium for illicit transactions.

In response to sustained pressure from the US, the Swiss agreed in 1982 to allow their banks to disclose the identity of customers suspected of insider dealing in some circumstances. The SEC made further breaches in Swiss secrecy in 1984-85, after a three-year legal battle, by prizing open the accounts of the purchasers of shares in the Santa Fe International Corporation just before a merger announcement.

Indeed, co-operation from the Swiss enabled the SEC to make one of its biggest catches yet, when a Bahamian subsidiary of a Zurich bank, Bank Leu, revealed the identity of Mr Dennis Levine, the Wall Street mergers and acquisitions specialist, arrested for insider dealing in May. The bank fingered Mr Levine after threats from the SEC against its operations in the US. The Bahamas government for its part agreed to waive its bank secrecy laws and allow the Bank Leu disclosure, even without any SEC application to its courts, because, it said, of the "peculiar and unprecedented circumstances of the case."

The government of the Cayman Islands, the other Caribbean tax haven penetrated by the US authorities, has taken similar action, waiving its bank secrecy rules in a 1983 tax case involving a Canadian bank. The Caymans has now signed an agreement with the US allowing for a limited exchange of information.

The SEC's campaign has not proceeded totally without frustration, however. Despite the new more open attitude of the Swiss in some cases, Swiss bank secrecy has impeded two large investigations since 1984. *Panama has resisted all attempts* to breach its bank secrecy and many Caribbean money-launderers have set up in the South Pacific islands of Nauru and Vanuatu.

Nonetheless, the SEC's achievements highlight the passivity of the DTI. The new Financial Services Act will allow it to take sanctions against the London branches of any foreign-based banks that refuse to co-operate with insider dealing investigations. But US observers are sceptical about whether these powers will be invoked in view of the UK's traditional fear of damaging London's status as an offshore banking and Euromarkets centre.

And in the case of third countries, where the SEC has made important advances, the DTI has failed to exert the pressures at its disposal. The Cayman Islands, in which Mr Collier's dealing company was based, has an information agreement with the US but not the UK even though it is a British dependancy. And many insider deals on the London Stock Exchange are carried out through the Channel Islands and Ise of Man which ought to be equally vulnerable to UK pressure.

Now that the political beat is on to give insider dealing probes a much higher priority in the UK—the Collier case prompted the Government to give tha DTI new tougher powers to compel the production of evidence, two months ahead of schedule—the debate over the seriousness of the offence itself has assumed a higher profile.

While in the US, insider dealing is seen as undermining the integrity of capital markets and the belief of small investors that they are on a level playing field with the Wall Street institutions, many European countries (with no history of wide share ownership) have not made insider dealing a *criminal* offence.

In the UK, tha offence has, up until now, not been considered a serious one. As Sir Martin Jacomb, deputy chairman of the Securities and Investment Board, the new City regulatory authority, argued last week, insider *dealing is* widely viewed as a victimless crima. Normally, the only losers are those market-makers who have failed to keep a tight control of their books. Investors who sell their shares when an insider is buying—so the argument goes—would normally hava sold even without him.

One of the leading US analysts of insider dealing, Henry Manne, director of the law and economic centre at George Mason University, near Washington, last week spoke out against the SEC's "maniacal crusade." The real problem, he said, lies in the framework for conducting takeover bids, the source of most inside information.

David Myddleton, professor of finance and accounting at the UK's Cranfield School of Management in Bedford, accepts Manne's economic arguments. "But when you see all the greed and the cheating that has come out over the last few weeks, it is difficult to take an ethical stand in favour," he says. "The best solution would be to make more commercial secrets come out into the open."

Nonetheless, even some of the *sterner critics of insider dealers* in the UK believe that the sanctions against them should have been left to private sector bodies such as their employers and the Stock Exchange rather than using the clumsy apparatus of the criminal law.

According to Bob Wilkinson, head of the Stock Exchange's surveillance department: "The smart thing would have been to make it a civil and not a criminal offence. But as it is too late now, we hava to stop being so prissy about our investigations."

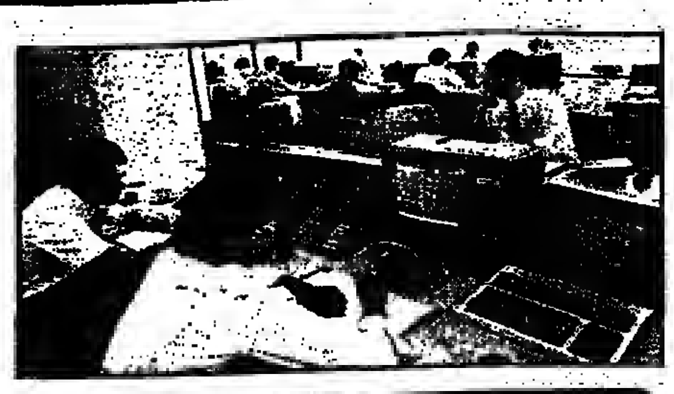
How the insider dealer does it

THE would-be insider trader gets a job with the corporate finance department of a merchant bank active in mergers and acquisitions.

Always travelling via a third country, he visits two tax havens, Panama and Liechtenstein, which have resisted foreign pressure on their secrecy laws. In each country, he sets up a trading company and opens accounts in two or three banks in their names. He only uses banks with no operations or assets in the UK and US.

He never tells the banks his real name but arranges for them to deal through a large London broking firm whenever they receive *coded instructions over the telephone.*

When he picks up inside information, he always trades alone using a call-box. Information-swapping rings have been out, ever since Levine and Boesky betrayed their contacts. He never trades in *large amounts but may break* up a transaction into a series of deals from different accounts. He avoids the mistake of trading just before a bid announcement — it makes the market-makers vengeful.



Checks on insider dealing

SECURITIES FIRMS:
- Monitor compliance by employees
- Notice suspicious dealings with customers

Sanctions: (1) Dismiss an employee and file report with regulators
(2) Stop dealing with an entside customer
(3) Report to stock exchanges

STOCK EXCHANGES:
- Monitor unusual patterns of trading and price movements *before inside information* is made public
- Investigate member firms/employees

Sanctions: (1) Bar an offender from trading on exchange
(2) Expel or suspend a member firm or individual
(3) Report to statutory regulator

UK	US
DEPARTMENT OF TRADE AND INDUSTRY	**SECURITIES AND EXCHANGE COMMISSION**
Investigation powers:	**Investigation powers:**
Onshore: To force open bank *accounts, compel* witnesses to answer questions and produce documents (unused to date)	**Onshore:** To subpoena individuals, firms, bank accounts and other documents (subject to challenge)
Offshore: (1) To take sanctions against the UK branches of non-cooperative *foreign banks, investment* houses (unused to date) (2) To gather information through agreement with SEC	*Offshore:* (1) To gather information through agreements with UK, Japan, Switzerland, Cayman Islands and others (2) To apply diplomatic pressure (3) To take sanctions against US branches of non-cooperative foreign banks etc
Sanctions: To prosecute an offender	*Sanctions:* (1) *To refer* offenders for prosecution (2) To fine an offender three times his illicit profits in a civil action (3) To impose other administrative *sanctions* (4) To provide all available *evidence to civil litigants* suing the offender

Men and Matters

By any other name

Laurie Milbank, the City stock-*broking firm, has run into a* spot of linguistic bother with the Japanese over its application for a securities dealing licence in Tokyo.

Japanese banking law says that banks may not deal in securities. Unfortunately, *Laurie Milbank's application* was translated literally into Japanese and its name came out with its final syllable given as "ginko"—the Japanese for bank.

Laurie Milbank explained the misunderstanding. But the Japanese said it might be better if the firm could find another name to evoid confusion. Chase Manhattan Bank, which owns Laurie Milbank, says it quite nnderstands the Japanese problem and will be bappy to think up a new name.

Restoring Rome

Yet another of the sights of Rome goes under cover next spring when restoration work is due to start on the 10 baroque angels which decorate the Ponte Sant'Angelo.

Designed by Bernini, but sculpted by his pupils, the statues stand on one of the oldest bridges over the Tiber which leads to one of the most popular sights of the city, the Castal Sant'Angelo.

The statues, like the Romans themselves, are suffering acutely from the ever-inereasing pollution of the city (which led to some areas being sealed off from private traffic for one day last week).

The comparatively rapid rescue operation set up to save the statues has been organised by two young Roman women whose company, Pangloss, specialises in finding private sponsors for public works.

They have one restoration job already to their credit — *that of the Barcaccia. Bernini's* boat-shaped fountain at the foot of the Spanish Steps — completed in a mere three months last summer.

That project was financed by the Rome daily, La Repubblica, and this time, Alitalia is putting up the money. Work on the angels should be completed in 18 months — an ambitious timetable when one remembers that the statue of Marco Aurelio has been missing from its plinth in Piazza del Campidoglio since January, 1981; and Marco Aurelio's column in Piazza Colonna has been shrouded in scaffolding since suffering from the effects of an earthquake six years ago.

"Didn't you get the message after all, Sid?"

Book deal

Merchant banker, Evelyn de Rothschild, who owns the oldest established book-sellers in Britain, Henry Sotheran of Sackville Street, London, has been extending his literary interests.

He has bought Weinreb Architectural Books—the biggest dealer in such books in the world.

Sotheran, whose chairman is Lord Drogheda, has been dealing in rare books and autograph letters since it was founded in York in 1761 (moving to London in 1815) and for soma time has been keen to expand the print side of its business.

The opportunity to link with the flourishing print-selling business which Ben Weinreb—who knows more than most about prints and old maps—has been operating near the British Museum in Store Street was "too good to be missed."

What has taken place, said a spokesman for both companies, is a marriage rather than a merger.

Lazy sailing

Ex-GEC executive Martin Jay, who took the helm at Lewmar, the British yacht equipment maker, when it was floated on the Unlisted Securities Market last year, has a strategy to make his firm the leader of what he calls the "push button sailing era."

He has just spent £4.6m to buy Brookes and Getehouse, another company with a world reputation in boating circles.

B and G of Lymington, Hampshire, specialises in marine electronics, indeed pioneered much of the gear, and will neatly complement Lewmar which is the world's leading supplier of yacht winches.

The companies began working together a few months ago to marry Lewmar's expertise in hydraulics to B and G's electronics skills in order to produce a new autopilot for the bigger yachts. The outcome has been a full merger.

Lewmar turns over more than £18m a year compared with B and G's £4.5m. Jay says he is confident that the combined company will enjoy a "synergy benefit" from the two technologies which should put it in a dominant market position.

Both companies have been working independently to capture more business in the buoyant power boat market, where if boat-handling cannot be done by pushing a button the owner sometimes doesn't feel inclined to do it at all.

But the sailing yacht market is moving rapidly in the same direction, much to Jay's satisfaction. He is scoring a notable success with hydraulically driven winches to save yachtsmens' aching muscles.

With push-button control of anchor, sails, winches and steering, all that will be needed is a steady hand to pour tha gins.

At law

Ken Graham, the TUC's deputy general secretary, and its principal legal and industrial relations expert, is to be awarded an honorary doctorate next month, along with Sir Denis Rooke, British Gas chairman, and Geoffrey Chandler, former director general of the National Economic Development Office.

The awards—among only eight doctorates given annually by the Council for National Academic Awards—will be presented at the Wedgwood factory near Stoke-on-Trent.

Graham's doctorate of law will be of comfort to him. He spent two days last week in the High Court, listening to a TUC-affiliated union, the white-collar ASTMS, attempt to overturn a TUC disputes committee award about union representation in the Sun Alliance insurance group.

Strong support

From the house magazine of a New York company: "When Miss Allmack joined us, she knew nothing about the corset and girdle trade but she lost no time in learning the marketing side of the business, and in less than four years she had become a mainstay of the organisation."

Observer

European chemical companies

An inescapable quest for critical mass

By Tony Jackson, Chemicals Correspondent

EUROPE'S chemical companies seem in a sudden hurry to buy into America. Hoechst of West Germany is bidding $2.8bn for Celanese, one of America's 10 biggest chemical companies. Rhone-Poulenc of France is paying $575m for the agrochemicals business of Union Carbide. Akzo of Holland is "actively seeking" US acquisitions.

This deluge of cash is, in one sense, surprising. The attractions of the US are plain enough: for a large number of important chemicals, America is the world's biggest market, and also the fastest growing. But then, it always was. Why the sudden interest?

The latest flurry is part of a process which has been going on for a couple of years. In November 1984, ICI laid out $750m on Beatrice Chemicals, and has since paid $580m for the US paint maker Glidden. BASF of West Germany has meanwhile spent $1bn on the paint maker Inmont and $135m on the composites business of Celanese, and has bought the fibres business of American Enka.

All this has not been mere fashion, though there may be a touch of that. To begin with, the fortunes of the US and European chemical industries have lately diverged. Mr Jean-Pierre Tiroufiet, financial controller of Rhone-Poulenc, says: "The European companies have earned a lot of money since 1983. But the US companies had a rough time last year."

There is at least one simple reason for that. At the beginning of the 1980s, with the dollar at the bottom of its cycle—as low as $2.44 against sterling and $0.56 against the D-mark—European companies could not sell against the Americans in third countries, and had to rationalise drastically and painfully as a result.

The cycle then reversed, and by the beginning of last year the dollar had doubled against the D-mark and almost reached parity with sterling. US producers, locked out in their turn, had to go through their own painful rationalisation while the Europeans reaped the benefits.

And now, with the Europeans cash-rich and the Americans drained by rationalisation and restructuring, the cycle has turned once more. Against the D-mark in particular, the dollar has nearly halved again, and to European eyes American assets look cheap.

But it is not just a matter of currency opportunism; after all, ICI bought Beatrice when the dollar was at its peak. Since the onset of recession in 1979, companies have been thoroughly unnerved by the effect of huge and irrational currency swings on their day-to-day business.

"The chief uncertainty is the EMS versus the dollar," says Mr Tiroufiet. "Even if you don't want access to the US market, some products are dollar-denominated, and in all markets the competitive position of the European industry is at the dollar's mercy. To protect yourself, you must have a presence on both sides of the Atlantic."

The point is appreciated in the US. Donald Sutherland, managing director of investor affairs with Du Pont, says: "The major European companies realise they can't control their currency baskets any more then we can. That means you have to have the asset base of the whole enterprise located in various currencies. We're looking aggressively at overseas acquisitions ourselves."

Protectionism and competition policy is another explicit —if muted—reason given by the Europeans for looking at the US just now. One British executive says: "There may be a window in time while the Reagan administration is there, and while anti-trust legislation is less strict than it was and perhaps will be." Or as Mr Sutherland puts it: "There's no question this administration has been very laissez-faire about market consolidation by suppliers."

And, of course, there has been no shortage of things to buy. The current reshuffle of corporate America's assets has largely had the effect of transferring previous attempts at diversification to owners who understand the businesses better—whether from home or abroad. Companies which have dragged their feet have been helped along by corporate raiders and greenmailers.

So, for instance, ICI bought Glidden from Lord Hanson, who had taken over its previous owner, the US typewriters-to-chemicals group SCM. BASF bought Inmont from United Technologies, a US conglomerate whose other interests range from Otis elevators to Sikorsky helicopters. Union Carbide's sale of its agro-chemical interests is at least partly prompted by the need to recoup the costs of fighting off a hostile bid from GAF.

Behind all the short-term factors, though, lies a relentless trend towards internationalism in the chemicals markets of the world. In 1980, says Mr Tiroufiet, around 50 per cent of Rhone-Poulenc's sales were in France. The figure is now 30 per cent. For ICI and the German companies the trend has been the same.

"As markets get more and more world-wide," Mr Tiroufiet says, "it's very important to control that whole market — either in very basic chemicals, where it's becoming a question of only a few companies staying in business, or in speciality chemicals, where you aim to get a big part of a smaller market."

So, for instance, a merger of Hoechst and Celanese would create the biggest US force in the commodity business of artificial fibres, and ICI's purchase of Glidden makes it the world's largest maker of paint. And on the other hand, ICI's acquisition of Beatrice, and BASF's of parts of Celanese, place both companies squarely in one of the vogue areas for the 21st century, advanced composites—in which, as in most such areas, the US market is well in advance of Europe.

And, adds Ronnie Hampel, ICI board director in charge of the Americas, "the technology of the industry is becoming worldwide, and you have to follow it."

Technology involves another aspect, known in the jargon as "critical mass." One British executive says "there is a view among some Europeans that you need a big enough base in the US to be taken seriously by the investment community, the chemical community and the universities in terms of recruitment. There's some truth in that."

A German executive says: "We are not eager to build up US turnover for its own sake—it's profit that matters. Critical mass is important, especially in fields like pharmaceutical research and development. Now all three of the German companies—Hoechst, Bayer, BASF—are among the eight biggest US chemical companies. We all have critical mass."

Still, however, the initial question returns. These arguments have held good for a long time. Why is it only now that they are being acted on?

One reason has to do with history. ICI kept well clear of the US market in the years before the Second World War, for the simple reason that it had a non-competition pact with Du Pont. The agreements were eventually busted by the US Department of Justice after raids on ICI's files in London.

Mr Hampel tells it more diplomatically. "Until 1954, ICI and Du Pont had a technical exchange agreement whereby Du Pont exploited ICI's inventions in the US. Then the world got smaller, and anti-competition legislation more stringent, so the arrangement was terminated.

"In the early 1970s we made our first significant thrust with the purchase of Atlas Chemical. In 1973, when I went out there, we had a $200m business. Sales are now over $3bn, built up roughly 50-50 between acquisition and growth. But the US is 40 per cent of the world market, and we still only have 20 per cent of our sales there."

In the case of the three big German chemical companies, the reason for a late start was simpler again. When IG Farben, the colossal chemical concern in which the three were joined, was broken up by the Allies after the war, all the combine's assets in the US were sequestrated.

A BASF executive says: "We started again in the US in 1952-53. At the same time we had to rebuild our factories at Ludwigshafen, which had been destroyed, and build up other assets in Europe. The huge expansion, for all three German companies, came in the late 1960s and early 1970s.

"You cannot jump into a market like this without preparation. You need maybe a decade before you can make an acquisition. It's the same with Japan — we've always said clearly that we're too small in Japan, but only now are we starting to feel sufficiently established to set up our first 100 per cent owned factory there."

But if the Europeans now feel ready to spread their wings, the US companies do not. A British oil company executive says: "The Americans have withdrawn into Fortress America. We see less activity from them than in the 1950s and 1960s, when the tide was in the other direction. They probably feel their own market will grow at least as fast as Europe's and there is also a feeling among them that if you want to compete on a world scale you need to put your own house in order first."

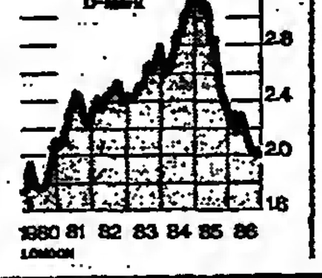
Meanwhile, there are no signs that the European buying spree is over. In some cases the individual strategy may be open to argument—Hoechst plunging back into commodity markets with Celanese, Rhone-Poulenc grappling with the dreadful problems of US agriculture. And then there is the cost. "To us," says one British executive, "some of the prices being paid are simply amazing."

Mr Hampel strikes a balanced note. "The logic of European acquisition in the US is totally comprehensible in the macro sense. The US is the biggest single capitalist market, and the one where it's easiest to maintain free trade. It's easier to do business than in Europe, where there are all the national and political problems. But there is a danger of being seduced by size. You have to be selective."

EUROPEAN ACQUISITIONS IN US

Buyer	Company	Date	Price
ICI	Beatrice Chemical	November 1984	$750m
BASF	Celanese composites division	Early 1985	$135m
BASF	Inmont	May 1985	$1bn
BASF	American Enka	June 1985	N/A
ICI	Glidden	August 1986	$580m
Hoechst	Celanese*	November 1986	$2.85bn
Rhone-Poulenc	UCC agrochemicals business	November 1986	$575m

* Bid still in progress



Lombard

Independence for Channel Four

By Samuel Brittan

THE TELEVISION channel I watch most is BBC 2, the Corporation's supposedly cultural channel. But the one which I enjoy most when I do watch it is Channel Four, the alternative channel of the private sector which, in the words of its chief executive, Jeremy Isaacs, "seeks to satisfy a discriminating few, an endless succession, that is, of changing groups of selective viewers who enjoy something of what they see on our screen, but do not expect to enjoy all of it."

It has been attacked by the puritan lobby for some of its films and by the intolerant left for a pro-private enterprise series. These two facts alone should suggest to the non-British student of broadcasting that there is a good deal going for Channel Four.

The ownership and financing arrangements, however, are something that only the British (or the Byzantines) could have invented. The channel is very independently managed; but it is wholly owned by the Independent Broadcasting Authority, which is itself a regulatory and not a broadcasting body.

Channel Four is financed by a levy on Independent Television companies, which amounts in effect to 13.6 per cent of their net advertising revenue in the previous year. In return the ITV companies place advertising at fixed slots on the channel, and collect the proceeds.

The share of advertising revenue attributable to Channel Four has been creeping up and amounted in 1985-86 to 10.9 per cent. Thus the channel is within sight of being self-supporting.

The Peacock Committee on broadcasting finance recommended that Channel Four should be "given the option" of ceasing to be a subsidiary of the IBA and of selling its own advertising. The committee wanted to see the continuation of scheduling complementary to what ITV is offering; and for this reason it did not want to force independence on an unwilling Channel Four.

On the insistence of Edmund Dell, the channel's chairman, a report was commissioned from Professor Alan Budd on the financial implications of the proposal. Publication of the Budd Report has been delayed until December 3 by rearguard action from opponents of independence.

But it is clear from several press leaks that Budd reported that the buoyancy of advertising revenue was quite sufficient for Channel Four to be self-supporting, while maintaining its distinctive output and not engaging in a popular ratings battle.

On the other hand, any loss to ITV companies would be far too small for it to be worth their while to "retaliate." The accountants, Coopers and Lybrand, also presented to Channel Four an alternative picture on pessimistic assumptions. But the root of the opposition to independence lies elsewhere.

The chairman and influential executives of Channel Four are in favour to varying degrees, as are one or two of the independent members. But the IBA likes its imperialist position and the ITV companies enjoy the television duopoly of themselves and the BBC. Several of the Channel Four board are either top executives of ITV companies or have past or present IBA connections.

The case for independence is partly a matter of freeing the channel from ITV bureaucracy. It is also anomalous that the IBA should be both the regulator and the owner of the channel. At a practical level there are many advantages in direct dealing with the advertisers who are interested in exploring the potentialities of specialist audiences. Looking ahead Edmund Dell has cast doubt on whether Channel Four's present painless method of finance could be relied upon in the longer run.

The only major way in which ITV companies could retaliate would be by challenging the principle of complementary scheduling, for instance by putting on programmes late at night designed to compete with Channel Four's more popular output. Any such behaviour would threaten the understandings on which ITV's present highly privileged position is based, and which Peacock reluctantly accepted for the short to medium term until a genuine broadcasting market is established. There is a limit to what vested interests should be allowed to block.

Letters to the Editor

Stainless steel prices

From the Director, Catering Equipment Manufacturers Association of Great Britain

Sir,—The members of this association, with a combined turnover of some £200m annually, are major consumers of stainless steel sheet, a raw material upon which they depend. Their industry has to compete worldwide often quoting long term prices. They must also be able to counter effectively the massive import penetration in this country while meeting widespread non-tariff barriers to trade in Europe.

The association is very deeply concerned by the present practices end intentions of the Europeen steel cartel—Eurofer. Supplies of stainless steel sheet are being withheld from the market by the imposition by tha cartel of quotas to create an artificial shortaga with the declared intention of achieving a 20 per cent increase in price in 1987.

The ample supplies of stainless steel sheet from overseas sources are forbidden entry to the European market.

It is thus the case that in this importent commodity the European consumer is penalised and damaged in a way which is surely contrary to the spirit and letter of EEC trade rules and which would, of course, be quite illegal in a normal trading situation. The longer term effect of these actions to move the problems of the steel industry on to their ultimate customers can only result in severe damage, loss of jobs, and a contraction of the overall market for the steel industry's prodncts.

Members hope to sea early action both by the European Commission and the British Government to stop the short-aighted policies of Eurofer.

(Dr) J. E. Munden.
14, Pall Mall, SW1.

Training and performance

From Mr E. Wood

Sir, — It simply is not true, as Professor Mangham claims (November 24), that the link between performance and management training has never been tested. Way back in the early 1970s Dr Patrick Prynne, my then colleague at Sheffield City Polytechnic, carried out a survey in which several hundred companies were asked questions about the extent and type of training. He then obtained the annual accounts of these firms.

Careful analysis showed that there was a correlation between performance (in terms of profitability) and the amount of training. The correlation however was inverse—the companies doing little or no training had higher returns on capital than those doing more training.

The only face-saving conclusion we could reach was that those who were satisfied with their performance felt that it was unnecessary to train while those who saw the need for improvement felt that training might help.

Unfortunately, funds were not available for a follow-up study several years later to see whether tha performance of those who were training had improved and vice versa. I suspect that many of the firms are no longer in business, but that those who have survived are tha more profitable ones who were doing little or no training.

Finding the connection, if any, between training and performance is not easy. Let's just accept that management training is a business that seeks to satisfy its customers.

E. G. Wood.
27, Townscliffe Lane,
Marple Bridge,
Stockport, Cheshire.

Poor cash flow

From the Marketing Director, Pert International

Sir,—May I comment on the points raised by Mr Martin (November 24) regarding the article, "Small businesses call for action on slow payers."

Too little emphasis is given to tha negotiation of credit terms when a sale is made. But, this is only one factor. Far too little consideration is given to tha importance of adequate and effective systems and procedures throughout the overall "order to cash" administrative cycle.

For instance, situations exist where np to 40 per cent of sales invoices contained mistakes; 95 per cent of companies still use statements which present the information in the wrong way; and, over 70 per cent of companies either have no published terms of payment and conditions of sale at all or have terms which are inappropriate for their business.

Too many companies rely solely on the credit control function "to get the money in," but effective sales force procedures, order-entry, production and despatch department efficiency, adequate information systems and inter-departmental co-operation are all essential.

The traditional and narrow view customarily found in British industry that credit management is only a problem for the credit controller has to be reversed if the paralysing effect of poor cash flow is to be stopped. With £25bn "overdue" at any one time, UK manufacturing and service industries are carrying a burden which many of their international competitors do not carry.

British industry will have to put its own house in order to reduce the UK average of 58 credit days to those enjoyed by, for example, its American and West German competitors. In tha US the figure is 44 and in Germany some 69 per cent of all bills are paid within the credit period allowed.

John Mirams.
243 Lower Mortlake Road,
Richmond, Surrey.

Penalising the innocent

From Mr D Evers

Sir,—A. H. Hermann's article "Punishing the innocent" (November 20) will be read with interest in the London insurance market which, depressed at the decision in the Bedford case, was in better heart following Mr. Justice Leggatt's decision in the Stewart case. In the Bedford case it was decided that the contracts of an insurer trading without authorisation under the Insurance Acts were void. As an underwriting agent I can testify as to the costly effect for at least one group of our clients of the Bedford decision. For our clients, the direct effect was that their syndicate was unable to recover under otherwise valid reinsurance contracts; the reinsured, who could not collect, was unaware that his reinsurer was unauthorised.

As Dr Hermann suggests, the Bedford decision (now confirmed in Phoenix) bas had knock-on effects and has meant that otherwise rightful claims could not be recovered from other unauthorised reinsurers, or rather, in a number of cases, from their liquidators. Now that in the Phoenix case the Court of Appeal has confirmed (if only obiter) the Bedford decision this will, to my certain knowledge, affect other claims being negotiated. It is even apparent from the Phoenix case itself that reinsurers used as a defence against claims the fact that they might be "unauthorised" only to find that this defence was not open to them because they had no unwittingly been "authorised" by the transitional provisions of the 1974 Act. Surely the innocent insured or reinsured who was quite unaware that he was doing business with an unauthorised insurer or reinsurer, is the last person who should be penalised? The situation is made more perilous by reason of the fact that, as your correspondent says, there are provisions in the 1974 Act to seek to mirror an EEC directive by reclassifying the categories of insurance in a way that can deprive an insurer of his authorisation.

David Evers.
30 Bush Lane, EC4.

Investment trusts

From Mr E. Chappell

Sir,—Lex (November 27) is unduly harsh in suggesting that it is only the prospect of corporate activity which has brought market strength to the investment trust sector: (at the aame date, the investment trust sector of the FT Actuaries Indices is the only sector to stand at its all-time high).

There is increasing realisation that the market is more fully appreciative of what the sector is designed to achieve—providing a spread of risk, both in general and specialist funds, high quality management, and low costs, to a wide range of investors both institutional and private. Laing and Cruickshank's survey demonstrated, both on net asset and share value growth, just how far the sector had out-performed the London and New York equity indices: other measures of past long-term performance show that for a number of years, investment trusts have out-performed unit trusts (which are so widely promoted, at the investor's ultimate expense) both on capital values and income growth, and other forms of savings media, such as building societies.

There are at least two other factors in the sector's fevour. Under new financial services legislation, there will be increasing pressure on intermediaries to recommend the investment which is best for the investor, not that which pays the intermediary the highest commission. Investment trusts have fully appreciated the need to trumpet their strengths and earn the support of their investors. New publicity programmes, at both individual and generic level, will emphasise their strengths.

The sector has been excelling for over a century: with a wider interest in private shareholding investment trusts will continue to flourish. In all logic, their lower management costs should cause them to stand at a premium over net asset value.

E. P. Chappell (Adviser).
Association of Investment Trust Companies,
6th Floor,
16, Finsbury Circus, EC2.

FINANCIAL TIMES

Monday December 1 1986

William Hall on Wall Street

Boom or bust for prices

WITH the Dow Jones industrial average ending last week less than six points short of a record high, are US share prices too high? It is a question that is worrying many investment managers as they return from the Thanksgiving holiday weekend.

The latest economic news out of Washington – particularly the sharp drop in orders for October durable goods – is far from encouraging, and the political news is even more disconcerting. The Iranian arms controversy has thrown the US administration into disarray and raised serious questions about the continued effectiveness of President Ronald Reagan during his final two years, which in turn could have important implications for Wall Street in the new year.

However, if Wall Street's bulls are beginning to lose their nerve about the long-term direction of US share prices, they could do a lot worse than spend a few minutes listening to Mr John Templeton, one of the grand old men of investment management, who left his Lyford Cay home in the Bahamas last week to attend the annual meetings in New York of his $6bn Templeton mutual funds.

Mr Templeton, a congenial septuagenarian and former Rhodes scholar, has been in the investment management game for close to 50 years, and whether one agrees or disagrees with him, his long-term view of where the US stock market has come from and where it is heading always makes good listening.

He stresses that US share prices have risen only 32 per cent over the past 50 years, stated in dollars of constant purchasing power, and are 45 per cent lower than the peak prices reached 20 years ago. The rise in prices has been small when compared with the rise in the annual gross national product of the US. Assuming a constant relationship between the two, Mr Templeton calculates that US share prices have effectively fallen by 73 per cent over the past 50 years and are only up a third from the 1982 low point.

The current ratio of US share prices to next year's estimated earnings of around 14 times is "about average for the past 80 years" and based on several other long-term comparisons, such as the relationship between US and Japanese share prices, US shares are close to their lowest levels for a long time.

In common with many investors, Mr Templeton is amazed by the valuation of the Japanese stock market and notes that during the great American bull market which ended in 1929, US share prices never rose above 23 times earnings while the Tokyo stock market index was recently selling at 48 times earnings. Nomura Securities, the biggest Japanese brokerage firm, has a stock market capitalisation which is 15 times that of Merrill Lynch, its biggest US rival.

Mr Templeton doubts whether such a divergence in stock market valuations can be justified over the long term. He is apprehensive about the impact on the rest of the world's stock markets if Tokyo prices were to collapse.

On the other hand, he is clearly intrigued by the possibility that US share valuations might rise sharply at some future date for some of the same reasons that have sent Japanese shares prices into the stratosphere.

"It is possible that in the next bull market, US share prices might rise far above what has been considered normal in the past in relation to earnings," says Mr Templeton who argues that the Japanese stock market is being fuelled by a "shortage of shares and a surplus of cash."

Over the last three years he estimates that 10 per cent of US shares disappeared because of takeovers, leveraged buy-outs and share buy-backs.

"A shrinkage of this magnitude has never before occurred in any nation." He is also impressed by the sheer weight of cash available – everything maturing within 18 months – which exceeds the total market value of all US shares, and given that US pension fund assets are expected to triple over the next decade, this factor is likely to become even more important.

Is there any danger that the US financial markets are heading for another 1929 great crash?

Mr Templeton says that there are some similarities between now and then, but the differences are much greater. It is possible that the Dow Jones industrial average could fall from its current level of near 2,000 to below 1,000, but this should not be mistaken for another great crash, just the inevitable bear market which will hit Wall Street sooner or later.

Peter Riddell reports on the Australian court case

Spy trial obsession rules London

Sir Robert, the epitome of the English establishment, has appeared to Westminster politicians like a hapless cricket captain of old.

"IT IS all very exotic – rather a metropolitan issue," a British Cabinet minister said after last week's further instalment of the secrets case with its naming of famous names, regular humiliation of Sir Robert Armstrong, the UK's Cabinet Secretary, in an Australian court and angry confrontations in the House of Commons.

The British Government is battling to prevent publication in Australia of a book by a retired officer of MI5, Britain's spy-catching service, in which he claims that a former director was a Russian agent.

The case resumes today when the British Government faces a further week of pressure and political embarrassment, both in the Australian courts and in the House of Commons.

Conservative Party leaders are mounting a concerted attempt to shift attention and criticism on to the role of Mr Neil Kinnock, the Labour leader who telephoned the defence lawyer last week in a widely condemned move.

Immediate attention will focus on a ruling by Mr Justice Philip Powell of the New South Wales Supreme Court on whether highly secret and sensitive British Government documents, which he has been reading during the weekend, should be made available to the defence.

The British Government has strongly resisted production of the documents and will, if necessary, appeal against the judge's decision.

For all its bizarreness the affair has become, however briefly, the dominant topic of discussion among UK politicians and commentators – to the virtual exclusion of anything else at successive Prime Minister's questions in the House of Commons and spilling over into lengthy points of order and dozens of written questions and motions.

This is a familiar pattern. For the time – sometimes weeks, occasionally a month or two – the British Parliament and those who report it become preoccupied, even obsessed, with an issue which appears peripheral to the main concern of Britain – Mr Mark Thatcher's involvement in an Oman building contract; opposition to the sinking of the Argentine cruiser Belgrano during the Falklands war and, even to some extent, the Westland helicopter affair. But by their very nature these affairs run out of steam and are replaced by more durable domestic issues.

While they last, however, Westminster talks of little else. And of course, the British middle and upper classes – and hence the press – can satisfy their fascination with spies.

But do most voters care? MPs report puzzlement, not anger, from their constituents – and hardly any letters on the topic.

Yet the MI5 affair does raise serious issues. The point of the UK Government's case in the Australian courts is that former MI5 officers, like Mr Peter Wright, should not be allowed to disclose information without authorisation. There should be a life-long vow of confidentiality based on adherence to the all-embracing Official Secrets Act which every government official signs at the outset of their career. Hardly anyone at Westminster would dissent from this principle.

The problem is that the Government may have been inconsistent in its application. In particular, Mr Wright was flown to Britain, with the help of Lord Rothschild, a powerful if reclusive establishment figure and himself a former MI5 officer, to assist with a book by journalist Mr Chapman Pincher – Their Trade is Treachery – published in 1981. This book alleged that Sir Roger Hollis, a former head of MI5, had been a Soviet agent.

Much of the Australian case has turned on whether or not there was British Government acquiescence in the publication of Mr Pincher's book and therefore on whether it has taken an inconsistent attitude.

The UK Government case is that there is a distinction between books written by former MI5 officers and those by journalists, even with the help of the former; and that when the Prime Minister was faced with a decision shortly before publication she was told it was too late to stop the disclosures.

The critics of the Government's case assert that the intelligence authorities knew about Mr Pincher's book and Mr Wright's close involvement well before publication. On this view, the authorities, at the very least, made a deliberate decision to allow the book to go ahead, and may have played a more positive role.

The case has also thrown up apparent inconsistencies in the Government's method of taking decisions. Sir Robert Armstrong has been forced to change submissions, notably over whether Sir Michael Havers, the Attorney-General and senior law officer was involved.

That retraction only followed week-long angry rumblings by Sir Michael leading up to a meeting with Mrs Thatcher.

Indeed, Sir Robert, the epitome of the English establishment, has appeared to Westminster politicians like a hapless cricket captain of old, probably wearing a Harlequin's cap and being barracked by Australian rowdies from the Hill at Sydney.

More substantially, a number of senior civil servants, as well as politicians, are worried about whether Sir Robert should be put in the position of being the public spokesman for Mrs Thatcher, as he also was in the Westland affair. They fear that, like Lord Armstrong (now deceased) under Mr Edward Heath, Sir Robert has become de facto head of a Prime Minister's department rather than Cabinet co-ordinator and impartial head of the civil service. There is strong Whitehall pressure for the two roles to be split again when Sir Robert retires after the next election.

The other constitutional question is over the control of the intelligence services. The SDP-Liberal Alliance will use a Commons debate on Wednesday to press the case for oversight by a Commons committee of privy councillors.

Labour will support this call and a few Tory MPs are sympathetic but it will be resisted by the Government. In theory, although not in practice, the current departmentally-related select committees could look at the two intelligence services and one committee did hold an inquiry into the special branch.

Finally, a loud, but not very substantial sub-plot has developed over the contacts between the office of Mr Neil Kinnock, the Labour leader, and Mr Malcolm Turnbull, the lawyer for Mr Wright. According to both Mr Kinnock and Mr Turnbull, eight telephone conversations have been concerned with what had been happening overnight in court and contained no confidential disclosures.

Tory MPs have furiously attacked Mr Kinnock for collusion and for undermining Britain's intelligence services. But, on present evidence, Mr Kinnock has been, at the most, unwise, or naive, in personally talking to a lawyer acting against the British Government in a foreign court.

Labour MPs suspect that the Conservative outrage is a device to shift attention away from the substances of the Australian case.

In any event, for all these sideshows, the Government faces the problem that unless it drops the case – and thereby compromises the principle of confidentiality – it faces further embarrassment in Australia and rows at Westminster. The show is not over yet.

Row grows over Iran arms deal

Continued from Page 1

ders, Mr Brent Scowcroft, a former National Security Adviser in the Ford Administration, and Sen John Tower have been appointed to a three-strong "blue ribbon" panel to investigate the role of the National Security Council in the wake of last week's disclosures. Mr Reagan is to meet the panel today.

Mr George Bush, the US Vice President and front runner for the Republican presidential candidacy in 1988, when Mr Reagan's term expires, is planning to make a statement this week, according to aides. Mr Bush has largely been politically invisible since the scandal broke, and his speech could determine whether his chances of getting the presidential nomination have been irrevocably damaged by the affair.

The atmosphere of crisis in Washington has grown since Mr Reagan, 75, left the capital last week to take his four-day break horseriding in the Californian mountains. In his regular weekly nationwide radio address on Saturday, he urged Americans not to become preoccupied with the "Iran issue" but to concentrate instead on the federal budget deficit and spending cuts.

But the US press, scenting blood for the first time in the six years of Mr Reagan's presidency, has been mercilessly pursuing every aspect of the scandal.

The New York Times reported yesterday that evidence was emerging of a big Saudi Arabian role, not only in secret Iranian purchases of arms but also in the supply of military equipment to the Nicaraguan rebels.

The report said that Lt Col North's associates – including retired air force Major General Richard Secord and Mr Albert Hakim, a former Iranian businessman – were in direct contact with the Saudis. The report also said bank records showed that an Iranian arms dealer, Mr Manucher Gharbanifar, had paid $5m to the Saudi middleman and arms dealer, Mr Adnan Khashoggi, who figured prominently in the US sale of the Awacs early warning system to Saudi Arabia, several years ago.

In a separate development, Justice Department officials were quoted in the Washington Post as expressing reservations about Mr Meese leading the government inquiry into the scandal, partly because of his close contacts with the President.

Expatriates spurn UK voting role

Continued from Page 1

more people registered but points out that, for the first time, those who wish to vote can now do so.

The outcome is a particular disappointment to the ruling Conservative Party which had been hoping for additional support from overseas voters. A direct mail shot was sent to more than 100,000 expatriates and a new body, Conservatives Abroad, was set up specifically to cater for their needs.

A variety of reasons have been put forward, with hindsight, by the parties for the low level of response, compared for example, with the 20 per cent voter registration by US citizens living in the UK. First, there may have been unfamiliarity with the new complicated procedures, and second the regulations only came into force on July 11, and even with considerable local publicity efforts, the run-up to registration coincided with the main holiday period.

Moreover, there have been suggestions that some British residents abroad may have been reluctant to register and thus risk attracting the notice of the Inland Revenue.

A number of British citizens living abroad have protested, notably in letters to the Financial Times, about the restrictive nature of the change. Only those current expatriates who have lived in the UK and have been registered as voters within the last five years can now become overseas electors.

This time limit reflected a compromise between the Labour Party's desire for tight controls and the Tories' preference for a less restrictive approach. Labour's agreement was necessary to allow the measure to become law in time.

Overseas electors are registered each year for the constituency where they were eligible to vote before they went abroad and have the right to vote by proxy at any parliamentary or Euro-election, though not at local elections.

World Weather

		°C	°F			°C	°F			°C	°F			°C	°F
Ajaccio	S	17	63	Dubrovnik	S	12	54	Malta	F	17	63	Rhodes	S	13	55
Algiers	R	13	55	Edinburgh	F	11	52	Manchester	S	4	39	Rio de J'o	C	36	97
Amsterdam	S	4	39	Faro	S	17	63	Manila	R	31	88	Rome	F	12	54
Athens	C	12	54	Florence	S	12	54	Melbourne	S	22	72	Salzburg	F	-2	28
Bahrain	S	27	81	Frankfurt	Sn	-1	30	Mexico City	S	22	72	San Francisco	S	15	59
Bangkok	S	29	84	Funchal	S	20	68	Miami	C	26	79	Seoul	F	5	41
Barcelona	S	14	57	Geneva	F	4	39	Milan	S	7	45	Singapore	R	30	86
Beirut	—	—	—	Gibraltar	F	16	61	Montreal	R	6	43	Stockholm	R	5	41
Belfast	S	9	48	Glasgow	R	9	48	Moscow	C	3	37	Strasbourg	Fg	-2	28
Belgrade	C	1	34	Guernsey	C	6	43	Munich	S	-2	28	Sydney	S	18	64
Berlin	S	3	37	Helsinki	S	3	37	Nairobi	C	22	72	Taipei	C	18	64
Biarritz	S	13	55	H. Kong	C	17	63	Naples	S	13	55	Tangier	S	18	64
Bombay	S	32	90	Innsbruck	S	3	37	Nassau	C	30	86	Tel Aviv	R	11	52
Bordeaux	Fg	6	43	Inverness	S	11	52	New Delhi	S	21	70	Tenerife	—	—	—
Brussels	S	5	41	Islamabad	C	18	64	New York	S	13	55	Tokyo	F	10	50
Budapest	F	-1	30	Istanbul	F	8	46	Nice	S	17	63	Toronto	C	8	46
B. Aires	C	21	70	Jakarta	C	30	86	Nicosia	S	11	52	Tunis	F	17	63
Cairo	F	18	64	Jersey	C	3	37	Oporto	F	13	55	Valencia	D	12	54
Cape Town	S	21	70	Jo'burg	F	22	72	Oslo	F	7	45	Venice	S	8	46
Caracas	C	26	79	Lima	C	21	71	Paris	C	1	34	Vienna	C	3	37
Casablanca	S	21	70	Lisbon	S	13	55	Peking	S	8	46	Warsaw	S	1	34
Chicago	R	5	41	London	C	6	43	Prague	F	-1	30	Washington	—	—	—
Cologne	S	5	41	Los Angeles	S	21	70	Reykjavik	C	-1	30	Zurich	Fg	-3	27
Copenhagen	S	6	43	Luxembourg	Fg	-3	27								
Corfu	S	15	59	Madrid	S	8	46								
Dallas	—	—	—	Majorca	F	15	59								
Dublin	C	15	59	Malaga	S	17	63								

Readings at mid-day yesterday:
C–Cloudy D–Drizzle F–Fair Fg–Fog H–Hail R–Rain S–Sun Sl–Sleet Sn–Snow T–Thunder

Turkey seeks migration deal

Continued from Page 1

of the Council of Ministers will be needed to prepare the ground for an Association Council meeting. Prof Bozer is due to meet Sir Geoffrey on December 18 in what is regarded as a crucial encounter.

Prof Bozer said he thought individual Turkish workers would have the right to sue in EEC courts if they were denied jobs in the Community but said he knew nothing about any plans to do so.

Although Community lawyers are now trying to play down the seriousness of Turkey's legal case, until a year ago they were privately offering the opinion that it was watertight.

World trade forecast to grow faster

By William Dullforce in Geneva

WORLD TRADE will grow slightly faster in volume this year than previously forecast owing to a sharp recovery in fuel exports. West Germany is set to replace the US as the world's biggest exporter in dollar terms, and for the first time developing countries will earn more from manufactured exports than from fuels.

These 1986 predictions, based by the secretariat of the General Agreement on Tariffs and Trade (Gatt) on figures for the first 10 months, are announced simultaneously with the publication today of Gatt's report on International Trade.* In a new format, it analyses international trade and policy issue in 1985 and the first half of 1986.

A flattening out in the impetuous growth of electronic exports and the importance of the North American market in the car industry's three-year recovery cycle are among the key developments analysed.

Heavier buying of fuels by importers this year in response to the fall in oil prices leads Gatt to revise its forecast for the growth in the volume of world merchandise trade to nearer 4 per cent than the 3.5 per cent predicted in its report.

Although larger than the 3 per cent recorded in 1985, this increase contrasts with average annual growth rates of 5.5 per cent during the 1970s and 8.5 per cent in the 1960s. The slowdown in trade is one of the principal motives for the new Uruguay round of multilateral trade talks.

The US will lose its primacy as an exporter of goods for the first time since 1921 when it took over from Britain. But West Germany's surge to the top of Gatt's exports table is a statistical oddity generated by the collapse in the dollar exchange rate against the D-Mark.

Measured in dollars, US exports have risen in value by just over 1 per cent to $180bn in the first 10 months while West German sales soared by 34.5 per cent to $200bn.

In D-Mark terms, West German export earnings fell by 1.9 per cent in value to DM 440bn ($220bn).

A more relevant conclusion from the latest figures is that US export growth remains sluggish and has only partially recouped during the past two years from the tremendous decline experienced in the early 1980s.

* Gatt International Trade 1985-86, available from Gatt Secretariat, 154 rue de Lausanne, 1211 Geneva 21, price SFr 30.

THE LEX COLUMN

Never the twain shall meet

It is a foolish man who describes any event in the financial markets as inevitable. But there were an awful lot of such foolish men who were proved right in September when the Japanese stock market began a slide which by mid October had wiped out about 16 per cent of its capitalisation. At its peak the Nikkei was on an earnings multiple of well over 50 – unprecedented even for a market which has never been particularly tied to the sort of measurements of value which obsess fund managers in the West.

The occidental view of the matter was sufficiently clear-cut to trigger a net sell-off by foreigners from the Japanese stock market – so far this year – of over Y3 trillion (million million). The west has been a net seller of the Tokyo market for some years, but this was an unloading of over four times the size of the previous year's disinvestment. Such a movement of funds is far more than can be written off as an attempt to realign a Japanese weighting which had become bloated as much through currency as share price appreciation.

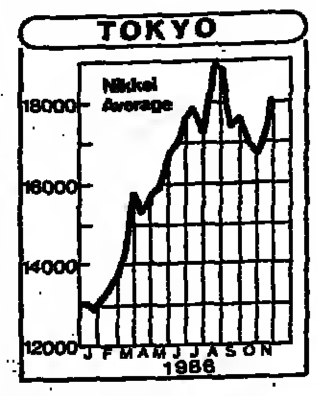
Gullible

As the index dipped below 16,000 the foreigners continued to sell and patted themselves on the back for their foresight. Yet it is beginning to look as though the supposedly gullible natives are having the last laugh: on Friday the market capped a steady recovery by breaking through the 18,000 point barrier.

The buzz words that had driven the market to its September peak was "weight of money." The normal Japanese propensity to save over 20 per cent of personal earnings, together with a massive windfall for the corporate sector as the oil price halved made a potent combination.

If weight of money is something which can push stocks up at a blistering pace, the same weight should in theory be able to push the same stocks down viciously. Yet the chief characteristic of the correction was that it took place on very small volumes – about a 10th of the peak of 2bn shares a day seen in August and September. It appears therefore that Japanese investors were simply mopping up the worst that the West could throw at them – and are now hungry for more.

If any proof of this were needed it came last Wednesday when the Ministry of Finance revealed that between 7m and 9m people had applied for the 1.65m shares available in the first tranche of the state's sale of stock in Nippon Telegraph and Telephone. Even by the standards of Japan NTT is on a zany rating. At the offer price of Y1.2m a share, the company will be on a multiple of around 130 times earnings. The day after the level of applications for the NTT offering was announced the company itself revealed that its pre-tax profits for the six months to September were less than 1 per cent up on the comparable period.



Those western financial institutions which complained bitterly at being excluded from the NTT offering – after Japanese investors had been allowed in on the British Telecom gravy train – must now be relieved. After all, it would have caused an unforgivable loss of face if foreign investors had turned down any stock offered. Yet even the deadweight of NTT stock due to hit the market in January is being turned into a bull point by the Japanese salesmen, who argue that the Government will pressure the big four securities houses into driving the market up so that NTT stock will not go to a (richly deserved) discount.

The western unease about the Japanese market is as much to do with the nature of the trading as the prices that happen to be reached. The frenzy of August was characterised by the Tokkin funds turning over vast quantities of stock in the blue chips, in true foreign exchange-dealer fashion, buying and selling within a day. The authorities have now acted to stamp out some of these excesses by bringing in investment laws last week which forbid investment trusts handing over their management to the traders. But there is a deeper danger in the system, which cannot be so easily solved by the creation of such Japanese walls.

Many of the Tokkin are acting solely for a single company, not to secure the pensions of the employees, but to generate profits for the company itself. When the strength of the yen strangles export earnings and deters new capital investment, companies have been putting their very considerable cash resources into stock market dabbling.

Realised capital gains can be treated as trading profits, which is a great incentive for the manufacturing companies whose earnings from normal trading are expected to fall this year by almost 50 per cent. A number of such companies are expected to earn much more from stock market speculation than from selling widgets. So there is a danger that a falling stock market could cripple the earnings of the very businesses whose difficult trading environment is itself a potential source of stock market weakness.

Cynical

Yet if cynicism about earnings were to crater Tokyo, it would have done so long ago. Most of the market heat is generated by asset – not earnings – plays. It is probable that the entire market is at a substantial discount to asset value, with companies valuing property and other assets in the book at pre-war prices. The paradox is that precisely those companies with a severe plant overcapacity are deemed attractive because of their potential for redevelopment in islands chronically short of space.

Such arguments might sway the western investor if the Japanese stock market had the ability to buy and sell whole companies in the style of London and New York. Unfortunately, the cultural impossibility of hostile bids in the Japanese business community suggests that a substantial discount to assets is appropriate.

Yet the deregulation of the savings industry in a country in which only 1.4 per cent of personal savings are in equities is a wonderful prospect for the equity salesmen. If the Japanese Government does remove the tax-free status of time deposit savings, then the weight of money in the stock market could be dramatically increased. And the biggest buy of all would be the shares of the securities houses themselves.

SECTION II – COMPANIES AND MARKETS

FINANCIAL TIMES

Monday December 1 1986

St Gobain issue 'oversubscribed'

BY DAVID HOUSEGO IN PARIS

THE SUCCESS of France's first major privatisation seemed assured at the weekend with every sign that the flotation of Saint Gobain, the glass and engineering group, had already been heavily oversubscribed. The issue closes on December 5.

In both Paris and London, "shares" were traded on Friday in unofficial dealings at between FFr 345-FFr 355 representing a premium of 11 per cent to 13 per cent on the issue price of FFr 310 ($48).

Some French banks were reported to have been faced with share demands 10 times higher than they could accommodate. Apart from institutional buyers, more than 1m individual investors, each entitled to at least 10 shares, are believed to have made offers, thus boosting the Government's hopes of generating a popular ownership for denationalised companies.

The 20 per cent of shares allowed to foreigners have already been placed by banks managing the issue including Kleinwort Benson in Britain. On offer are 28m shares, representing 84 per cent of the group's capital.

The Government has done its best to assure the success of the issue by fixing an offer price of FFr 310 – or only FFr 3 above the last quoted price of its *certificats d'investissement* (non-voting stock). Other factors that have contributed to the success of the issue, are the encouraging profit forecasts made by the company and the growing belief in an upturn in the international glass industry.

French officials fear, however, that the privatisation of Paribas, the state-owned investment bank and the next institution on the Government's list, could be more difficult. This is because Paribas's complex banking and industrial interests make it more difficult to fix an offer price that is both tempting to shareholders and fair to the state.

At the same time, the privatisation programme is beginning to have a crowding out effect on the French capital markets.

In the first nine months of this year, new bond and share issues by French institutions on the Paris bourse have raised FFr 391bn – an increase of 57 per cent on the same period last year.

Eurobond market sees the knives out for FRNs

LAST WEEK'S tiff in the Eurobond market about Standard Chartered's $200m perpetual floating rate note (FRN) gave primary dealers plenty of food for thought, writes Haig Simonian in London.

Yet the debate over the success of the deal and whether the lead manager, Credit Suisse First Boston, had cut itself too succulent a helping, seemed something of a digression in a week when the knives were out for FRNs across the board.

Prices for floaters had almost recovered from the heavy falls of early last month, when the run on paper priced at London interbank bid rate (Libid) triggered a wider decline.

Since then, there had been something of a rally in FRNs thanks to fewer new issues and more generous pricing over London interbank offered rate (Libor). Wednesday's perpetual issue for Rhône-Poulenc, the French state-owned chemicals group, offered investors a coupon of ⅜ point over six-month Libor for the first three years, rising by ⅛ point a year thereafter to a ceiling of Libor plus one percentage point.

Admittedly, few dealers expected the paper ever to hit that maximum; the issue will most probably be called when the company's privatisation plans are clarified, letting it transform the FRN into some form of equity capital.

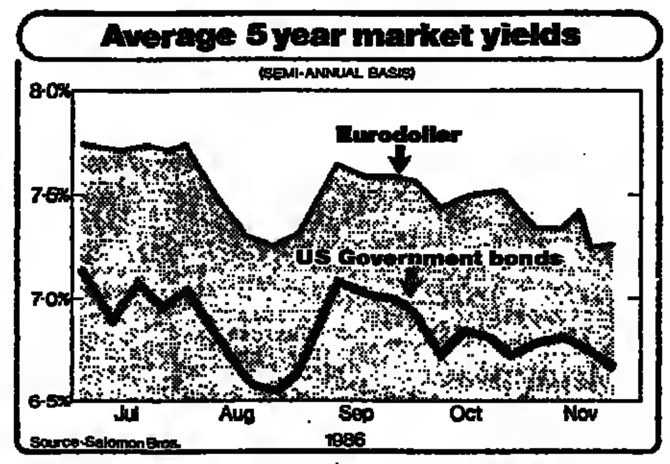
Yet, the paper is cast in an even better light when viewed in terms of its likely six-year call: ⅜ point over Libor for the first three years and Libor plus ⅛ for the second three-year span is a juicy spread indeed. Its very different structure means it is not directly comparable, but many dealers reckoned the terms were much more generous than those for Rhône-Poulenc's recent $275m seven-year credit, which was heavily oversubscribed.

Various reasons lay behind last week's tumble in FRN prices. Rumours about an imminent clampdown on Japanese purchases of subordinated debt got the week off to a bad start. Then there was the continuing overhang of sub-Libor priced paper. However strong the earlier recovery, dealers had only begun to clear the backlog.

In the circumstances, the Standard Chartered issue was probably more the scapegoat than the cause of the ensuing price falls. While some syndicate managers are still squabbling about that deal, opinion differs widely about where the FRN market is heading at present.

The optimists think floaters will stabilise again shortly, just as they did after early November's sharp falls. Generously priced FRNs for high quality names remain in demand. At a spread of 45 basis points over one-month Libor for a likely triple A investment, the $500m issue for Prudential Insurance Company of America has gone down a treat.

The doomsters think otherwise, however. They argue the market is going through more than just some seasonal pre-Christmas blues. It is certainly hard for the marketeers to persuade a prospective borrower – say a commercial bank – which could have issued floating rate paper at 5 basis points over Libor a few weeks ago to take the plunge at Libor plus ⅛ or plus 3/16 now.



Many borrowers will respond by continuing with short-term funding, or by turning to the fixed rate market instead. The word in dollar straights has been a lot better.

Signs of renewed Japanese retail interest in the US Treasury Bond market gave the benchmark 30-year long bond a healthy fillip. Yields on the long bond were down to 7.40 per cent on Friday against the previous week's close of 7.44 per cent. Earlier last week yields had dropped further, scraping 7.36 per cent on Tuesday.

That was all good news for the straight Eurodollar market, even if taken more selectively, with five to seven-year maturities benefiting most strongly. The market was thrown out of kilter by the Thanksgiving holiday and the decision of many New York dealers to make it a long weekend. But last week's modest new issue volume in straight Eurodollars helped to bolster prices.

A torrent of pre-Christmas new issues, or hara-kiri pricing by a lead manager anxious to climb the league tables before the year is out, could yet upset tha balance. Otherwise, however, the outlook for straight Eurodollar bonds seems more promising.

Last week's rise in the Nikkei stock index of Japanese shares spurred a number of equity warrant and convertible deals for Japanese companies, many of which met with keen investor demand. There has been something of a lull in such deals since the market reached saturation point in September. Is there something to be said for the benefits of restraint?

EUROMARKET TURNOVER
Turnover ($m)

Primary Market	Straights	Conv	FRN	Other
US$	868.5	170.0	3,239.4	2,410.4
Prev	2,508.3	91.1	1,587.6	2,812.2
Other	779.1	3.0	388.2	113.9
Prev	443.6	280.7	184.6	125.8
Secondary Market				
US$	24,171.8	1,254.0	13,579.2	4,341.8
Prev	21,117.8	1,423.7	22,381.9	5,967.8
Other	12,025.6	160.1	2,225.8	6,168.0
Prev	12,476.9	320.9	2,837.8	6,076.9

	Cedel	Euroclear	Total
US$	13,702.0	36,630.8	50,332.8
Prev	16,440.7	41,447.7	57,888.4
Other	10,205.0	11,634.7	21,838.7
Prev	10,798.5	11,948.5	22,747.9

Week to Nov. 27, 1986 — Source: AIBD

Petro-Lewis considers filing for bankruptcy

BY WILLIAM HALL IN NEW YORK

PETRO-LEWIS, the struggling Denver-based oil and gas group which was one of the most aggressive marketers of oil and gas partnerships during the boom in oil prices, has defaulted on some of its debt payments and is considering filing for protection under Chapter 11 of the US bankruptcy code.

The group, which is in the process of being taken over by Freeport-McMoran, a New Orleans-based energy group, has been hard hit by the slump in world oil and gas prices and has frequently threatened to file for Chapter 11 bankruptcy in the past. In the year to end-June, the group lost $415.6m after taking a $338m write-down of its oil and gas properties.

Petro-Lewis has warned that unless Freeport-McMoran's $750m acquisition is allowed to go through, it will have no alternative but to file for bankruptcy. Petro-Lewis has been losing money for three years and a Chapter 11 filing could wipe out stockholders equity and would hurt many of the "secured" bond holders.

Stunning terms for Renfe in six-year Euronote loan facility

RENFE, Spain's state railway, has ridden like an express train on to new ground in the Euronote market with the terms of its latest $315m, six year loan facility mandated to Manufacturers Hanover, last week, writes Peter Montagnon in London.

The deal bears a facility fee of just 2½ basis points for the first three years rising to 3 points thereafter. This is way below terms achieved by other European sovereign borrowers which have been pressing for some time against a 4 point barrier.

Terms on the Renfe deal were expected to be very fine, both because of the intense competition among leading banks to win the mandate and because of the recent successful syndication of a $50m credit for ICO, the state credit agency, which carries a margin of 15 basis points over the London interbank bid rate for Eurodollar deposits (Libid).

Yet the pricing of the deal still stunned the market when it was unveiled on Friday. Besides the low facility fee, the terms include a margin on drawings on Libid flat plus a utilisation fee of 12½ points on any amounts drawn. Taken together with the facility fee, this will mean that the return to participating banks on a fully drawn basis will be equivalent to that on the ICO credit.

But it is by no means a foregone conclusion that Renfe will be so lucky. In the first place ICO's deal proved to be quite hard to syndicate despite its oversubscription. In the end it was helped by the fact that lenders can obtain a tax credit that bumps up their yield. The same should apply in Renfe's case but the advantage is less clear.

Renfe will use the deal to back up issues of Eurocommercial paper at a time when Spanish paper generally sells at a discount of 10 points to Libid. That means the facility is unlikely ever to be drawn, so that the potential tax advantages to lenders are rather academic.

In fact Renfe intends to cut the amount of the facility by half, three months after signing. This is because new regulations are due to come into effect in Spain under which Eurocommercial paper issues will no longer have to be fully backed up by standby facilities. It is paying a 4 basis point frout-end fee for the facility which is arguably equivalent to 8 points on the smaller amount left after cutting.

Nonetheless the initial response from the market was that the rewards looked scant. Syndication is to be on a selective basis with Manufacturers Hanover looking for banks to underwrite chunks of $50m. The hope is that enough are willing to take on such a large commitment in return for the rare chance of being appointed as a dealer on a Eurocommercial paper programme guaranteed by the Kingdom of Spain.

In other words, the fine terms on this deal are the price of a subscription for such a coveted dealership. Competition may still prove strong enough to tip the balance in favour of the deal. Already on Friday about half the amount was covered. On the other hand, banks will also be looking at the cost of applying capital to a commitment which bears such a low return.

Most bankers assume that at some point a line will have to be drawn in this respect. Manufacturers Hanover argues that facility fees are now already so low that their actual level does not matter. Haggling about every ½ basis point makes no sense when in cash terms it is worth only $25,000 a year for a bank committed to $50m.

Take this point to its logical conclusion, however, and one could wonder whether fees should be scrapped altogether. Perhaps banks should even start paying their customers for the privilege of doing business with them.

That, of course, is just too flippant. A more reasonable and general conclusion to be drawn from the terms of this deal is that the days of the standby facility to back up Eurocommercial paper issues for the best borrowers are simply on the way out.

Among other deals, Thailand has launched a $300m, 10-year credit through Morgan Guaranty which carries a margin of ⅛ point for the first two years, rising to ¼ point thereafter.

Barclays de Zoete Wedd is arranging a £150m loan facility for Next, the UK clothing retailer, with an accompanying £100m commercial paper facility. Half the facility will be on a committed basis with a fee of 6¼ basis points, while the rest will be a reserve tranche at a fee of 3½ points. Drawings will bear interest at a margin of 15 basis points over Libor.

J. Bibby, the agriculture products group, has launched a £70m paper programme through County NatWest, while Cummins Financial of the US has appointed Goldman Sachs to lead a $100m, five-year loan facility at an annual fee of 12.5 basis points.

INTERNATIONAL CAPITAL MARKETS

US MONEY AND CREDIT

Markets shrug off deepening crisis on arms sales

MANY US traders used Thursday's Thanksgiving holiday as an excuse to limit their trading activities to the first three days of last week, so the recent performance in the US credit markets may not be a particularly reliable guide to the near-term outlook.

The equity and fixed-income markets both managed to shrug off the news of the deepening political crisis in the US Administration over arms sales to Iran, and ended the week higher than they started. The only area of the financial markets to show any nervousness was the foreign exchange markets where the dollar came under pressure.

The price of gold ended the week $12 higher at $390 an ounce and the US currency slipped below the DM 2 level and finished the week a shade above DM 1.97. By contrast, the new long bond, Treasury 7½ per cent due 2016, continued to advance and closed the holiday-shortened week ¾ points higher at 101¼ to yield 7.40 per cent.

At the shorter end of the market, rates were little changed. At the weekly US Treasury bill auction, rates on the new 13-week bills dropped an average four basis points to 5.35 per cent and the average rate on the 26-week bills fell by five basis points to 5.39 per cent. The Treasury was able to auction $8.25bn of five-year notes with a 6⅝ per cent coupon at an average rate of 6.66 per cent and by the end of the week the issue was trading at 99¾ to yield 6.65 per cent.

Last week's economic news held no nasty surprises for the bond markets. US consumer prices rose by a lower than expected 0.2 per cent in October, durable goods orders fell by a surprisingly large 6 per cent and the trade deficit in October narrowed for the third month in a row to $12.1bn — its lowest level in 14 months.

As Smith Barney notes in its latest credit market comment, the economic data released throughout November has brought about any "en masse" lowering of growth projections. It is sticking to its earlier fourth-quarter forecast of 3 per cent growth in gross national product and a 2½ per cent growth in 1987, but admits that its outlook is at the upper end of analysts' expectations.

"While it is clear that some of the more recent data releases seemed more consistent with weaker rather than stronger economic growth, we do not believe that such evidence is yet sufficient to push the Fed toward an easier credit policy at the present time," says Smith Barney.

Mr Philip Braverman of Irving Securities is more committed in his belief that the Fed will eventually be forced to ease further, noting that "there is no other effective mechanism under the Fed's control to deal with proliferating weakness in the US economy." He argues that the recent declines in US interest rates have not been sufficient to rejuvenate the economy and is looking for the Fed to cut its discount rate again by mid-February, round about the time when Mr Paul Volcker, the Federal Reserve chairman, gives his Humphrey Hawkins testimony to Congress.

"Since another one-half percentage point discount rate cut would not be sufficient to boost growth, expect two or more additional half-point cuts, some in co-ordination with other central banks," says Mr Braverman.

A lot can happen between now and mid-February and analysts will be focusing their attention in particular on this week's economic news which will give the first clue about how strongly the US economy performed in November. Tomorrow's release of the November index of leading economic indicators is expected to show a gain of between 0.3 per cent and 0.5 per cent but the real interest will be centred on Friday's US employment figures.

Kleinwort Benson Government Securities says that the October figures appeared "implausibly strong" and there is nothing elsewhere in the economy to suggest that payroll employment has any reason to be growing above trend — currently about 225,000 people per month — for any extended interval. It is looking for last month's 298,000 person upsurge to be offset in coming months and is anticipating a payroll employment increase of around 190,000 people. "If we are mistaken, it is likely to be because the actual number is weaker rather than stronger," says Kleinwort.

In the corporate bond market, traders are continuing to monitor the health of the high yield, low grade "junk bond" issues in the wake of the Ivan Boesky insider trading scandal. Smith Barney says that it is significant that the "junk" market has weathered two of its most widely feared crises—the bankruptcy of a major issuer (LTV) and an interruption of liquidity. "While both events point out tangible and significant risks associated with speculative paper, the market's behaviour in the aftermath of each crisis also attests to its resilience," says Smith Barney.

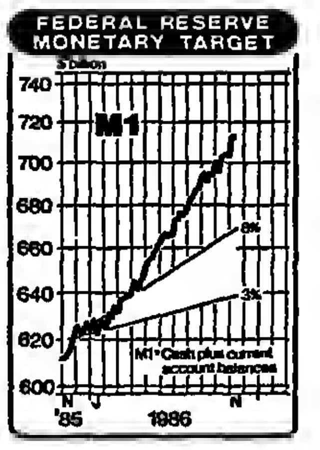
Nevertheless, there are signs that the pace of "junk bond" issues has slowed recently. Revlon's abandonment of its $4.1bn bid for Gillette has removed the need for one major issue from the market and analysts are still waiting to see how easily Drexel Burnham Lambert, the investment bank which pioneered the market, can market a major new issue of below investment grade paper. The planned issue of $500m of 15-year subordinated debentures for Bond Brewing Holdings of Australia could prove a useful test.

Meanwhile, investment grade issues have again begun to dominate the new issue calendar. The Canadian province of Quebec brought to market a 40-year debenture which was priced at 102 basis points above the US Treasury 9¼ per cent due 2016, and yielded 8.66 per cent. The issue, which was rated AA3 by Moody's, was non-callable for life and was increased in size by $50m to $300m.

Among other well-known corporate names tapping the market last week, were American Express and Warner Lambert. The former raised $250m of 10-year notes on a 7⅞ per cent coupon which was priced at 99.4 to yield 7.963 per cent — a spread of 84 basis points over the comparable Treasury issue. Warner Lambert raised $100m of seven-year notes on a yield of 7½ per cent, or a spread of 60 basis points over the comparable Treasury issue.

William Hall

FEDERAL RESERVE MONETARY TARGET



US MONEY MARKET RATES (%)

	Last Friday	1 week ago	4 wks ago	12-month High	12-month Low
Fed Funds (weekly average)	6.00	6.28	6.88	8.91	6.11
Three-month Treasury bills	6.38	5.36	5.20	7.28	5.01
Six-month Treasury bills	6.41	6.40	5.28	7.38	5.06
Three-month prime CDs	6.00	5.78	6.71	8.05	5.46
30-day Commercial Paper	5.85	0.85	5.65	8.05	0.96
90-day Commercial Paper	5.78	5.78	5.58	7.95	0.45

US BOND PRICES AND YIELDS (%)

	Last Friday	Change on week	Yield	1 week ago	4 wks ago
Seven-year Treasury	100⅞	+⅛	6.87	6.90	7.10
20-year Treasury	118⅝	—	7.70	7.70	7.84
30-year Treasury	101⅛	+⅞	7.41	7.44	N/A
New 10-year "A" Financial	N/A	—	8.13	8.13	8.38
New "AA" Long utility	N/A	—	0.00	0.00	8.20
New "AA" Long Industrial	N/A	—	8.88	8.88	8.00

Source: Salomon Bros (estimates).

Money Supply: In the week ended November 17 M1 fell by $1.0bn to $712.3bn.

NRI TOKYO BOND INDEX

December 1983 = 100	27/11/86	Average yield (%)	Last week	12-week ago	26-week ago
Overall	130.75	0.08	130.38	128.63	124.70
Government Bonds	131.52	4.73	131.18	129.78	125.31
Municipal Bonds	131.20	5.46	130.66	128.24	124.04
Government-Guaranteed Bonds	131.87	8.62	131.30	128.83	124.51
Bank Debentures	127.18	4.81	126.88	125.29	122.31
Corporate Bonds	129.57	0.86	129.28	127.25	123.31
Yen-denominated Foreign Bonds	131.58	8.57	131.27	129.73	125.12
Government 10-year†		5.46	8.53	8.27	8.67

† Estimated par yield.

Source: Nomura Research Institute

UK GILTS

£400m issue brings rally to halt

ON TWO occasions in November the Bank of England made available stock which appeared to be targeted at pockets of demand in an otherwise fragile market. In both cases, the beginnings of a cautious rally were snuffed out.

About two weeks ago, the Bank took onto its books two £50m tranches of index-linked stock and since then this sector has gone quiet. On Friday, it announced the issue of £400m of stock, spread across the maturities spectrum, and prices promptly fell by about half a point, bringing to at least a temporary halt what had looked like the glimmerings of a real bounce at last.

It is a salutary comment on the persistent weakness of retail demand that even relatively modest amounts of stock have been enough to stop the market in its tracks, despite the Bank's sensitivity to the kind of demand which has materialised.

It was not particularly surprising that Friday's announcement avoided burdening the index-linked sector further. And it could perhaps have been guessed that, in response to the overseas demand seen last week, the Bank would offer stock with particular attractions for foreigners.

And it did. All three stocks —10¼ per cent Treasury Convertible 1992, 9 per cent Conversion 2000, and 8¾ per cent Treasury Loan 2007—are tax-free to residents abroad.

It was a very large order last Wednesday afternoon from abroad, switching funds from dollar and D-mark denominated investments into gilts, which sparked off heavy futures shortcovering and confirmed that overseas investors were doing a bit more than just dipping toes in to test the water. However, the business was done in very mainstream stocks and suggests that last week's improvement in sentiment has not resulted in anything like generalised demand.

Still, given the relatively low level of gross gilt sales still needed to fund the public sector borrowing requirement this year, and the switch in emphasis to the equity market, it could be that the authorities may continue to fund in dribs and drabs and still do enough. Maybe the market can forget concerns about indigestion in response to supply of stock and get on with worrying about sterling, oil and the balance of payments.

Two reports from securities houses shed some light. Greenwell Montagu concludes that, unless political fears subsided or oil prices firmed significantly, a major fall in interest rates and gilt-edged yields would have to wait until prospects for the current account improved.

The report argues that, whatever the size and duration of deficits—the range for next year seems to be the National Institute's forecast of £5.6bn and the Chancellor's £1.5bn—a capital inflow of a similar size would be needed. "It is therefore necessary to generate sufficient and lasting change in the relative attractiveness of UK assets in comparison to the situation prevailing in the last six years," Greenwell says.

Warburg Securities, in a report entitled "Equity risk premium (or Why hold gilts at all)," says that equities, even on a risk adjusted basis, have proved to be a much better investment that gilts over the last 10 years. Roll on British Gas.

Janet Bush

FT/AIBD INTERNATIONAL BOND SERVICE

US DOLLAR STRAIGHTS	Issued	Price	Chg. on week	Yield
AHFC O/S Fin 11½ 94	100	103½	+0¼	11.00
AIDC 11 89	75	107¼	−0¼	7.25
Alcan Australia 8½ 89	25	99⅝	−0¼	8.52
Amer Saving 12 89	125	105⅝	−0¼	8.22
[illegible]				

	Issued	Price	Chg. on week	Yield
Rural Bk Aust 12 91	60	111½	−0⅛	8.54
Sanwa Bank 11½ 92	150	112¼	+0⅛	8.86
Sanwa Intl 11½ 92	100	116½	+0⅛	7.69
Saskatchewan 10⅝ 92	100	112½	0	7.78
Saskatchewan 10⅞ 90	125	109⅝	−0⅛	7.33
Saskatchewan 11⅝ 89	100	112	0	7.28
[illegible]				

	Issued	Price	Chg. on week	Prem.
CIR Intl 4⅞ 95	85	134⅞	−1⅛	−15.60
Daiwa Secs 5⅛ 98	60	568	+83½	−0.50
Electrowatt 5 98	51	153⅞	+8	−0.57
Fuji Bank 2⅝ 00	100	156	+2¼	4.03
Fujitsu 3 99	180	137½	+3⅞	0.72
Intec Inc 3 99	60	192¾	+16	−1.06
[illegible]				

STRAIGHT BONDS: Yield to redemption of the mid-price. Amount issued is expressed in millions of currency units except for yen bonds, where it is in billions.
FLOATING RATE NOTES: US dollars unless indicated. Margin above six-month offered rate (‡ three-month; § above mean rate) for US dollars. C.cpn=current coupon.
CONVERTIBLE BONDS: US dollars unless indicated. Prem=percentage premium of the current effective price of buying shares via the bond over the most recent share price.

Closing prices on November 28.

Plessey fails on System X deal

BY GUY DE JONQUIERES AND TERRY DODSWORTH IN LONDON

PLESSEY, the UK electronics and defence group, has failed in its attempt to break into the French market with its System X telephone exchange equipment following a three-month assessment by the telecommunications authorities.

The French decision to reject Plessey's bid was conveyed personally to Sir John Clark, chairman of the UK company, by Mr Gerard Longuet, Minister of Posts and Telecommunications, at a meeting in Paris last week.

Mr Longuet said that System X, the digital switch developed jointly by Plessey and GEC of the UK, did not meet the technical requirements of the Direction Générale des Telecommunications (DGT), the Government-owned telecommunications authority.

Plessey would not comment on the meeting in Paris. But the Government ruling almost certainly means that the company will have to abandon its plans to join the international bidding battle for the takeover of CGCT, the French company which has a stake of around 16 per cent in the $370m-a-year domestic public telephone equipment market.

The decision also means that one more overseas market has closed to System X, which has won only one tiny foreign order in the West Indies so far. Contracts overseas to supplement deliveries to British Telecom in the UK will be essential for the two British supplier companies to turn a profit on the equipment.

Plessey acknowledged when it approached the French with System X that it stood only an outside chance of winning approval. Other large international telecommunication groups, including AT&T of the US, Ericsson of Sweden and Siemens of West Germany, have been talking to the French for well over a year and have had the opportunity to put their equipment on detailed test with the DGT.

In addition, Plessey's case cannot have been helped by British Telecom's rejection last year of the E10 switch made by the CGE group of France as a UK alternative to System X. The French have made no secret of the fact that they were deeply angered by the decision and particularly by the brusque manner they believe they were dealt with by BT.

Mr Longuet went out of his way, however, to indicate to Plessey that other markets might be open to it in France. In particular, he underlined the openings in cellular radio telephone systems and in private branch exchanges, two areas which Plessey has earmarked for attack.

In addition, it is believed that there may be possibilities for overseas suppliers in overlay or bypass services, where special equipment is installed for clients who require particularly high-grade services.

Samancor surplus falls to R165.4m in interim

BY JIM JONES IN JOHANNESBURG

SAMANCOR, South Africa's largest manganese and ferro-alloys company, saw a worldwide drop in carbon steel production affect ore and alloy sales in the six months to September 30, 1986.

Nevertheless, strong demand for ferro-chrome and the persistent weakness of the rand against the dollar combined to lift the half-year's turnover.

The first-half's turnover rose to R401m ($86.2m) from R351m in the corresponding period of 1985, but the interim pre-tax profit slipped to R165.4m from R165.6m. In the last financial year turnover totalled R803m and the pre-tax profit was R336m.

Rand London, the troubled South African mining company controlled by Burnett and Hallamshire, suffered a profit decline in the six months to September 30 and is continuing with its rationalisation and asset disposals programmes.

The first half's turnover dropped to R37.2m ($8m) from R46.7m in the corresponding period of 1985, the interim operating profit before tax and interest fell to R3.5m from R5.4m and the pre-tax profit was R1.9m against R3.5m. Turnover was R94.2m in the financial year to March 31 1986, the operating profit was R7.9m and the pre-tax profit was R4.9m.

Leucadia buys 39% stake in PHLcorp

By William Hall in New York

LEUCADIA NATIONAL, the financial services and insurance group which has taken equity positions in several takeover stocks, is seeking control of PHLcorp, formerly known as Baldwin-United, whose collapse in 1983 sent shock waves through Wall Street and the insurance industry.

Leucadia has bought a 39 per cent stake in PHLcorp and said in a filing with the US Securities and Exchange Commission that it planned to hold a shareholders meeting as soon as possible to nominate its own directors.

Leucadia said it would conduct a detailed review of PHLcorp, its assets, operations, properties and policies and might seek to implement one or more plans or proposals to maximise the value of its investment. PHLcorp shares closed $¼ higher at $11¼ on Friday.

Baldwin-United changed its name to PHLcorp last month as part of a plan to distance itself from its past following its emergence from one of the largest and most complex bankruptcy reorganisations in US corporate history.

The company is engaged primarily in trading stamps incentive schemes, travel services and insurance.

The company recently disclosed a pro-forma balance sheet as of the end of June which showed assets of approximately $500m, of which just under half would have been assets of its insurance businesses. It estimated that it would have liabilities of $491m, of which just over $200m would have been reserves for life, accident and health and other insurance related benefits and $170m would have been estimated liabilities for unredeemed trading stamps.

Mr Peter A. Martosella, PHLcorp's chief executive and a principal of the Palmiere company which has a management services agreement with the group, said last month that with the reorganisation completed the company's management "intends to move vigorously to maximise the opportunities available to it."

Japanese utilities' profits rise 62%

BY YOKO SHIBATA IN TOKYO

COMBINED pre-tax profits of Japan's nine main electric power utilities surged 62.5 per cent to Y620.1bn ($3.83bn) in the first half-year to September, drawing benefit from the yen's appreciation and falling crude oil prices.

In addition to the three major companies – Tokyo Electric Power, Kansai and Chubu – another three which achieved record results were Hokkaido, Shikoku and Kyushu.

Windfall profits from the strong yen and cheaper crude amounted to Y686bn, up about Y80bn from their initial projections. From the windfall, the nine companies made rebates totalling Y490.3bn to customers including industrial users. The remainder was retained as internal reserves.

Combined electricity sales fell 0.5 per cent to 259.8bn kilowatt hours, or a 7.4 per cent fall in value terms to Y5,940.6bn. This reflected depressed industrial power consumptioo in manufacturing industries which have been hit hard by the appreciation in the Japanese currency.

For the second half-year, the nine power companies expect an increase in demand for electricity from household and service sector users. However, demand for industrial use is thought unlikely to recover yet. The electricity generating industry is likely to come under pressure from export industries to cut power rates substantially at a scheduled adjustment in charges on January 1.

● Japan's seven leading trust banks, which handle fund management business, achieved record pretax profits totalling Y260.53bn ($1.61bn) in the first half-year to September, a jump of 92.3 per cent from the comparable period of 1985.

Net profits showed a 97.6 per cent increase to Y102.96bn, also a record. The earnings strength was attributed to the improvement of their interest spread. Fund procurement costs declined in line with the lowering of long-term interest rates in Japan, while a much smaller decline was shown in operating yield such as interest rates for housing loans.

The buoyant earnings performance was also attributed to a sharp gain in income from trust business and securities and property transactions. Combined income from trust fees such as loan trusts and money funds gained by 34.8 per cent to Y236.5bn.

Combined commission income jumped by 60.5 per cent to Y152.9bn, a gain which was attributed to active participatioo in securities and bond markets by institutions and corporate investors, through so-called Tokkin specialised trust accounts and other funds, a trend itself reflecting the strength of stock and bond markets.

The net increase in Tokkin accounts and trust funds in the April-September half-year reached Y5,861.9bn, equivalent to that achieved in the whole of the previous financial year.

JAPANESE ELECTRIC POWER COMPANIES
Parent company results, half-year to September 1986

	Sales Ybn	%	Pre-tax profit Ybn	%	Net profit Ybn	%
Hokkaido	217.5	(– 2.3)	19.6	(+65.9)	12.3	(+ 98.3)
Tohoku	517.1	(– 9.4)	11.3	(+24.4)	20.0	(+ 11.0)
Tokyo	1,978.9	(– 6.0)	186.9	(+83.2)	90.4	(+141.0)
Chubu	846.3	(–10.4)	134.6	(+95.7)	65.7	(+143.3)
Hokuriku	178.4	(– 7.2)	21.8	(– 2.7)	9.9	(+ 16.1)
Kansai	1,060.5	(– 6.2)	113.6	(+73.7)	46.8	(+190.9)
Chugoku	403.5	(–11.9)	32.8	(+16.1)	17.9	(+ 18.6)
Shikoku	201.3	(– 9.8)	25.4	(+12.3)	12.8	(+ 11.9)
Kyushu	536.7	(– 5.5)	13.6	(+62.7)	19.5	(+ 10.6)

JAPANESE TRUST BANKS
Parent company results, half-year to September 1986

	Operating income Ybn	%	Pre-tax profit Ybn	%	Net profit Ybn	%
Sumitomo	427.9	(8.8)	64.6	(77.7)	25.0	(101.7)
Mitsubishi	420.2	(–0.7)	60.1	(72.8)	24.9	(102.4)
Mitsui	349.6	(1.5)	47.4	(106.7)	19.2	(85.6)
Yasuda	327.5	(5.2)	36.2	(87.6)	14.0	(90.9)
Toyo	218.5	(17.2)	31.3	(116.6)	13.1	(91.6)
Chuo	139.8	(24.5)	16.2	(213.3)	5.0	(161.2)
Nippon	55.3	(0.2)	4.9	(87.4)	1.6	(80.2)

Canadian bank improves

BY BERNARD SIMON IN TORONTO

BANK OF NOVA SCOTIA, Canada's fourth biggest banking group, raised net income to C$336.2m (US$243m) or C$1.94 per share, in the year to October 31, from C$303.6m, or C$1.82 a share, in fiscal 1985. Fourth-quarter earnings rose from C$82.3m to C$100.1m.

The bank ascribed the improvement partly to a 5 per cent increase in earning assets to C$59.8m, mainly in the form of Canadian loans, mortgages and bankers acceptances. Non-interest income climbed 23 per cent to C$435m. reflecting higher foreign exchange revenues, corporate credit fees and new products.

Annual loan losses grew from C$376.3m to C$435.4m.

● BNS's loan loss provisions in the table on page 15 of the Canadian Banking Survey published on October 3 were inadvertently shown as quarterly figures. instead of the nine-month data given for other banks. BNS's nine-month provisions were C$306.3 in 1986 and C$224.2m last year.

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Book Runner	Offer yield %
U.S. DOLLARS							
Lucas Ind. §‡	61	2001	15	5½	100	J. H. Schroder Wagg	5.600
Aichi Toyota Motor Co. ¶‡	20	1991	5	3¾	100	Nomura Int.	3.750
Kanto Natural Gas ¶‡	40	1991	5	3¾	100	Yamaichi Int. (Eur)	3.750
Harima Chemicals ¶‡	30	1991	5	3¾	100	Daiwa Europe	3.750
Pepsico ‡	100	1991	5	7¼	101½	SBCI	6.885
ECSC ‡	85	1996	10	8¼	104.2	Shearson, Sumitomo Tr.	7.634
Standard Chartered (b)†‡	200	Perp.	–	15bp	100	CSFB	–
Swedish Export Cr. ‡	100	1991	5	7¼	101¾	Daiwa Europe	6.825
Daiwa O'seas Fin. ‡	100	1993	7	7⅞	101⅝	CSFB	7.567
UBS Finance ‡	200	1993	7	7¼	101	UBS (Secs)	7.064
Minebea ‡	100	1991	5	7¾	101⅞	Daiwa Europe	7.289
Pohang Steel (c)†‡	75	1996	10	⅛	100	BA (Asia)	–
Shiseido Co. ¶	120	1991	5	(3⅝)	100	Daiwa Europe	•
Rhone-Poulenc (d)†‡	300	Perp.	–	⅜	100	Société Générale	–
IBJ Finance ‡	200	1992	5	7⅜	101⅜	IBJ Int.	7.039
Yodogawa Steel Wks ¶	70	1991	5	(3¾)	100	Yamaichi Int. (Eur)	•
Chiba Bank §	100	2002	15¼	(2⅜)	100	Nomura Int.	•
Takasago Thermal Eng. ¶	25	1991	5	(3¾)	100	Yamaichi Int. (Eur)	•
Dev Bk of Singapore §	100	2001	15	(4)	100	Daiwa Secs.	•
CANADIAN DOLLARS							
Loblaw Cos. (a)‡	75	2001	15	10	101¼	Orion Royal Bank	9.837
D-MARKS							
Neder. Middenstandsbk ¶‡	150	1993	7	2¼	100	BHF-Bank	2.250
SWISS FRANCS							
Ichikoh Ind. **§‡	30	1992	–	1⅛	100	SBC	1.125
Nippon Chemiphar **¶‡	59	1991	–	2⅜	100	Bqe Paribas (Suisse)	2.375
Shiseido Co. ¶	100	1993	–	(2¼)	•	Credit Suisse	•
Shiseido Co. **¶	100	1993	–	(2½)	•	Credit Suisse	•
Meidensha Elec. Mfg. **§	120	1992	–	(1⅛)	(100)	Banca del Gottardo	•
Dai-Ichi Seiyaku **§	100	1992	–	(1⅛)	•	Credit Suisse	•
Bqe Algerienne d'Dev. (e)†‡	60 max.	1996	–	½	100	SBC	–
Nankai El. Railway **‡	50	1991	–	4⅞	100⅞	B.della Sviz. Italiana	4.789
Osaka Fish Market **§	50	1992	–	(1⅛)	•	Handelsbank	•
Takara Standard **§	40	1992	–	(1⅛)	100	Bank Julius Baer	•
Kinugawa Rubber **	20	1993	–	(5)	(99¾)	Crédit Suisse	•
Kingawa Rubber ¶	30	1993	–	(2⅝)	•	Crédit Suisse	•
EIB **‡	175	1991	–	4⅝	100¼	UBS	4.586
Standard Chartered ¶	300	1997	–	•	•	Handelsbank	•
ECUs							
Fiat Fin. and Trade ‡	50	1991	4.6	8	101⅞	San Paolo Bank	7.536
Aerospatiale ‡	75	1992	5	7⅝	100¾	Credit Lyonnais	7.440
GUILDERS							
Credit Foncier ‡	250	1997	10	6½	100¼	ABN	6.466
DANISH KRONER							
Cariplo ‡	250	1993	6½	10⅜	100	Enskilda Secs.	10.375
LUXEMBOURG FRANCS							
Morgan Grenfell Inv. **‡	300	1992	6	7⅜	100	Kredietbank Int.	7.375
European Community ‡	1bn	1996	10	7	100	Kredietbank Int.	7.000
YEN							
Italy ‡	30bn	1992	6	5⅜	100½	IBJ Int.	5.276
Nippon Oil ‡	20bn	1992	6	8	113	Nomura Int.	5.405
Nippon Oil ‡	30bn	1992	6	5¾	101⅞	Yamaichi Int. (Eur)	5.376
Nordic Inv. Bank ‡	8bn	1994	7½	(f)	101¾	IBJ Int.	–

* Not yet priced. ‡ Final terms. ** Private placement. † Floating rate note. ¶ With equity warrants. ∯ With bond warrants. ‖ Currency-linked. (a) Coupon 10% first 5 years, retractable/adjustable bonds. (b) 15bp over 6m Libor, additional $100m tap. (c) ⅛ over 6m Libor. (d) ⅜ over 6m Libor, first 3 years, increasing ⅛ every 3 years to maximum of 1%. (e) ½ over 6m Libor. (f) Coupon 3% to June 1990, 8.35% thereafter. Note: Yields are calculated on AIBD basis.

UK COMPANY NEWS

THE MCCORQUODALE CASE

Panel chairman to explain 'concert party' rejection

BY RAYMOND HUGHES, LAW COURTS CORRESPONDENT

SIR JASPER HOLLOM, chairman of the City Takeover Panel, will today tell the Court of Appeal why the Panel rejected a "concert party" complaint mada by Prudential-Bache, the US securlties house, in the battla over the £155m takeover bid by printer Norton Opax for McCorquodale, another printing group.

The court resumes its bearing of the judicial review of the panel's decision sought by Pru-Bache, which is advising Detafin, a company formed by an element in McCorquodale that favours a management buy-out.

Pru-Bache's complaint to the panel, and the basis of its challenge to the panel's ruling, have been overshadowed by the fact that tha court hearing has become the first detailed examination of the legal status of the panel and the extent, if any, to which it is under the control of the courts.

Pru-Bache complained to the panel that a last-minute purchase of McCorquodale shares by the Knwait Investment Office, one of Norton's "core" underwriters, at 315.5p, when Norton's cash alternative was 303p, was the result of a "concert party."

The KIO purchase tipped tha balance in favour of the Norton offer.

Pru-Bache alleged that KIO ected in concert with Norton and Greenwell Montagu, Norton's broker, to enable the bid to succeed, and benefited financially.

Pru-Bache's original argument on the judicial review was thet the panel had misdirected itself in law in failing to consider the application of Rule 6 of the City takeover code, which deals with purchases of shares et above the offer price. That rule, argued Pru-Bache, epplied precisely to the KIO purchase.

During the court hearing Pru-Bache emended its claim to edd an allegation that the panel had also misdirected itself as to whet was the proper test of whether thera had been e concert party.

The panel executive, said Mr Jeremy Lever, QC, for Pru-Bache, had heen greatly influenced by the absence of any communication between KIO and Norton prior to, and relating to, the KIO purchase.

Arrangements had clearly been made to enable KIO and Norton to pley the same game on the same side and in time with each other, and to do so without direct communication with each other, Mr Lever said.

Any panel acting reasonobly, he submitted, would have inferred from what had happened that there must have been an agreement or concert party.

Pru-Bache believes that its judicial review claim is an all or nothing one: thot if it does not hove a claim under public law it has no claim at all.

However, part way through the hearing, at the invitation of Sir John Donaldson, the Master of the Rolls, the company produced e writ claiming the private law remedies of an injunction and damages against the panel.

The existence of the writ will enable the court, if it decides that the panel is not susceptible to public law, to see whether it can be sued under private law.

For that to be the case there would have to be found some form of contractual relotionship between the panel and companies appearing before it. Such a relationship would enable a company dissatisfied with a panel ruling to go to court—without tha judicial review process requirement of first having to seek permission from the court—and claim private law orders against the panel.

The hearing is expected to finish today and the likelihood is that the court will take time to consider its judgment.

British Gas to take soft line on late applications

By Richard Tomkins

As the response to the £5.6bn offer for sale of shares in British Gas gathered momentum over the weekend, N. M. Rothschild, the merchant hank sponsoring the issue, indicated that it was likely to take a soft line over applications which failed to arrive before this Wednesday's 10 am deadline.

The total number of applications received so far is well over 2m and the forms are now arriving at the rate of more than 1m a day. This means that even if only a small proportion is delayed in the post, many people's applications will fail to meet the deadline.

To avoid bad feeling among would-be investors, Rothschild says it is likely to take a lenient view of late applications provided they carry a first class stamp and are postmarked with a date no later than tomorrow's.

A poll of 100 institutional fund managers by City Research Associates found that 36 per cent of them expected British Gas's shares to go to a premium of 10p to 20p when dealings began, and 33 per cent expected a premium of 20p to 30p. This compares with Friday's "grey" (unofficial) market price of 62p for the 50p partly-paid shares.

It also emerged that the majority of applicants so far have opted for tha incentive of the one-for-10 loyalty bonus at tha end of three years rather than the gas bill vouchers, suggesting that a high proportion of epplicants intends to become long-term shareholders.

Barry Riley on the listing of MIL Research

Expanding into a bigger league

ON HEARING Rudi Goldsmith and Stanley Orwell arguing with each other, the visitor might conclude that their relationship could not last long. In fact, the two have been close business partners for more than 30 years, building up Britain's sixth largest market research company MIL Research Group.

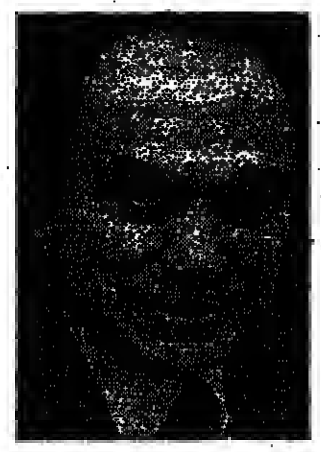
Later this month the company will obtain a stock market listing through a placing by County. Part of the proceeds will be used to buy a similar, though smaller, US business called Market Measures, building up the group's overseas operations which already include an American subsidiary as well as a German business.

The move, according to Mr Goldsmith, the chairman, marks the company's graduation to a bigger league. "Market research has ceased to be a cottage industry," he says. "You have to get bigger or you have to become a boutique. The market for middle-sized firms will be squeezed."

MIL has sought to avoid the most competitive sectors of the market research industry, where large sums have to be spent in tendering for each contract against many rivals. The company finds that it rarely has more than two or three competitors in its own fields.

It has prospered on the basis of several specialities, dealing especially for the pharmaceutical, motor and information technology industries. Although MIL has a few major regular clients like General Foods and Unilever in the consumer field, it generally steers clear of this highly competitive area.

"We have a smaller than normal percentage of our work in the area of interviewing housewives," Mr Goldsmith emphasises.



Mr Rudi Goldsmith, the MIL chairman

Healthcare is a major client area, where MIL works for most of the major pharmaceutical companies, measuring markets and assessing the views of the medical profession. Its Chicago-based subsidiary will now be merged with the similar New Jersey-based medical research specialist Market Measures, and the latter's president Mr Bernard Koff will be joining the board.

One notable activity in the US is the operation of a hospital technology audit under an exclusive agreement with the American Hospital Association, providing data on diagnostic equipment.

In the motor industry MIL has pioneered the technique known as quality tracking, whereby component faults in cars can be detected through market research techniques before they show up, much more expensively, in warranty claims. Ford, Jaguar, Rover and Volvo are among the manufacturers using this service, which involves telephoning car buyers 30 or 60 days after delivery.

The third speciality sector is information technology, where MIL's subsidiary Industrial Data has helped to set up the Comtec service, a multi-client database which covers current and potential users of various information technology products.

Jointly founded in 1955 by Mr Goldsmith and Mr Orwell, deputy chairman, MIL (originally known as Market Investigations Limited) now has five subsidiaries and a nine-man board. Turnover, including Market Measures, reached £9.6m in the latest year, and pre-tax profits were £772,000, with a significantly higher figure expected for the current year.

In the past MIL has been owned on a 50-50 basis by the two founders, but there will now be a substantial restructuring. "At one stroke I have settled many of the commercial questions for the company," says Rudi Goldsmith.

Some 35 per cent of the capital is to be placed at a price yet to be decided (the brokers to the issue will be Phillips & Drew). Part of the proceeds will be used to enable MIL to take up its option to purchase Market Measures. Elsewhere, minority stakes held by executives in subsidiaries will be rolled over into shares of the parent group.

Mr Goldsmith says that the public listing will enable MIL to consider further acquisitions, though no particular deal is in mind at present. It will also be possible to offer stock option schemes to executives.

FIVE YEAR RECORD

	Turnover £000	Pre-tax profit £000
1982	4,700	35
1983	6,000	211
1984	7,400	288
1985	8,400	573
1986	9,600	772

The question of providing for management succession has also been a factor. The excitable and voluble Rudi Goldsmith is said to have provided the company's business drive, while the soft-spoken Stanley Orwell has provided much of the creative talent. But with the more than doubling of turnover in the past five years much of the day-to-day responsibility for projects has already passed to other executives.

The two founders are not planning retirement yet, and they will retain a controlling stake, but they are concerned about the continuity of the business. Mr Goldsmith mentions the possibility of a management buyout of the controlling interest eventually.

Meanwhile, he says, the challenge for market researchers is to develop a multinational capability, and to invest in expensive databanks. MIL already has extensive computer-based facilities which enable it to monitor the results of surveys while they are still under way.

There is an increasing need to deal with the head offices of large multinationals. "Local management is losing authority for market research," says Rudi Goldsmith. "Products are becoming too expensive to be designed for one market. International product managers require international surveys to be conducted under comparable conditions."

Rushlake has 10% stake in Mitchell Cotts

Rushlake Holdings has increased to 10 per cent its stake in Mitchell Cotts, the engineering, chemical and trading group.

When Rushlake, a private company controlled by the Jivraj family, first built up a stake in Mitchell early this month, it stated that it viewed the bolding as a long-term investment. It has bad no contact with Mitchell Cotts.

Rushlake has a 57 per cent controlling stake in London Park Hotals and also bas a 6.4 per cent stake in Wigfalls, the electrical retail and rental group. It recently sold a 10.9 per cent stake in Thermax Holdings, the USM-quoted glass manufacturer.

Circaprint

Circaprint Holdings, USM-quoted maker of circuit boards produced slightly lower pre-tax profits fort ha year to August 31 1986 et £627,000 against £636,000, on turnover which rose from £7.35m to £8.51m.

After tax of £209,000 (£148,000) earnings per 10p share were down from 9.3p to 7.9p. But the directors are proposing an increased single final payment of 1.278p, compared with 1.05p last time.

FT Share Information

The following securities have been added to the Share Information Service.

Berry, Birch & Noble (Section: Insurance)
Citygrove (Property)
Comtech 11½pc Gtd. Conv. Una. Ln. 1996 (Industrials)
Interlink Express (Industrials)
Netionwide Bldgs. Soc. 11½pc 26/10/87 (Loans, Building Societies)
Newage Transmissions (Engineering)

Cranswick Mill lower

Cranswick Mill Group, the USM-qnoted animal feeds manufacturer and dealer in wholesale livestock, reported pre-tax profits down from £426,000 to £391,000 in the balf year to September 27, 1986, largely as a result of e disappointing second quarter.

The directors said that the year had started encouragingly, with first quarter results in excess of those of the corresponding period last year. However, this progress was not sustained in the second three-month period.

Group turnover rose by 22 per cent from £16.7m to £20.4m.

Tax fell from £167,000 to £137,000 and earnings amounted to 4.5p (6.7p). The interim was 1.85p as against the 1.77p indicated in the prospectus.

Munton £1.9m rights

Munton Brothers, clothing manufacturer and supplier to Marks and Spencer, has announced a nine-for-ten rights issua to raise £1.9m. The directors have indicated that £1.35m of the proceeds will be used for spending on new plant and equipment and £200,00 on computerised control systems.

Plans are underway to establish a garment processing operation at a cost of about £415,000.

Although the directors were unable to make a profits forecast for the year, they announced that sales had improved in recent weeks and that they viewed the future with confidence. In the year to June 30, 1986, Munton made pre-tax profits of £111,000.

Just more than 14.8m new shares will be issued at 14p each. Barclays de Zoete Wedd will act as underwriters.

COMPANY NEWS IN BRIEF

MILFORD (DONEGAL) Bakery and Flour Mills: Final dividend 2.5p (nil), making 2.5p for the year ended August 30, 1986. Turnover I£6.6m (£6.4m) and pre-tax profit I£41,279 (I£265,175 loss). Net profit I£29,694 (I£256,551 loss) after tax of I£11,585 (I£8,624 credit). Earnings per share 4.69p (43.02 loss).

SCOTTISH INVESTMENT TRUST net asset value was 483.1p (349p) per 25p share at end October 1986. Earnings per share were 6.55p (5.81p). Final dividend 4.25p making 6.55p (5.96p) total. After-tax revenue was £5.69m (£5.06m).

PENNY AND GILES (electronic instrumentation)—Turnover £8.37m (£6.9m) and profit £581,000 (£414,000) half year ended September 30 1986. Earnings 4.22p (2.62p) and interim dividend 0.76p (0.68p) net per share. Directors confident in prospects for continued growth, both organically and hy acquisition.

BERRY PACIFIC (Sterling) Fund: Net assets attributable to shareholders equity of the fund at September 30 1986 were £40.57m (£18.94m). Net income for the period was £46,633 (£270,108).

MARINE ADVENTURE Sailing Trust net asset value per £1 share was 282.6p (207.3p) at revenue £31,000 (£15,000). Total distributions to the Marine Society (gross) £122.463 (£151.320).

MURRAY TECHNOLOGY Investments net asset valne fell from 116.19p to 110.39p per share in six months to September 30 1986. Net incoma was £59,788 (£45,219), or 0.4p (0.3p) per share.

Leopold Joseph down midway

Leopold Joseph Holdings, banking and merchant banking concern, said profits before tax for the half year to September 30, 1986 were somewhat lower than in the corresponding period of the previous year. This reflected the not unusual pattern in the flow of business, the directors stated.

They declared an unchanged interim dividend of 2.812p per £1 share. The current year's outcome was again expected to be satisfactory.

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether the dividends are interims or finals and the subdivisions shown below are based mainly on last year's timetable.

TODAY

Interims: Arlen, Chamberlin and Hill, Chelsea Man, Craighton Laboratories, Orumond, Lynton, Marling Industries, Norton Opax, Pifco International, Stirling, TR Natural Resources Investment Trust, Zygal Dynamics.

Finals: AE, Thomas Borthwick, Dundee and London Investment Trust, Polly Peck, Trafalgar House.

FUTURE DATES

Interims—	
British Benzol	Dec 4
OSC	Dec 4
Ovvle (Godfrey)	Dec 4
Equity Consort Invest. Trust	Dec 10
Friest (Benjamin)	Dec 4
Prontoprint	Dec 15
Rolfe and Nolan	Dec 3
Finals—	
Raisling Boats	Dec 4
Goring Kerr	†Dec 8
Holmes and Marchant	Dec 4
TACE	†Dec 3
Union Discount	Feb 4

† Amended.

Alice Rawsthorn looks at the latest USM flotation

Northumbrian makes a healthy debut

ALL TOO often accounts of a company's passage to public quotation make it all sound so simple. As the experience of Northumbrian Fine Foods, a health food and biscuit producer which is joining the USM tomorrow, shows it is often fraught with difficulties.

In 1970 Mr Richard Adams, a Lloyds insurance broker who had grown tired of spending his days "standing in queues waiting for underwriters or being herded like cattle into railway carriages between Chelsea and the City," bought a small, specialist biscuit company in Gateshead, near Newcastle, in conjunction with his father.

Shaws, which had begun life as the Cottage Bakery manufacturing a family recipe of Yorkshire parkin, then supplied a limited range of specialist biscuits to food stores across the country. "The biscuits were wonderful," recalled Mr Adams. "But the factory looked like something from the 1890s. I was young, just 24, and idealistic. I was convinced it would be no problem at all to take it in hand. But it proved to be much more difficult than I had thought."

The chief problem was money, or rather the lack of it. Mr Adams had sunk most of his own capital into buying the business, for £25,000. The factory was rented, the machinery second hand. The company had no assets to use as security for a loan. But in order to increase sales, then standing at £30,000, Mr Adams desperately needed to expand.

Three banks later, he finally secured an overdraft of £10,000. Investors in Industry then produced a loan of £30,000 and took an option on a 29 per cent holding for £7,800. The company increased production and turnover rose steadily throughout the late 1970s.

Shortly after his arrival Mr Adams developed the first "healthy" biscuit. In 1973 the Northumbrian range of products was introduced, using the same high quality ingredients but less expensive packaging. The Shaw's brand name was gradually dropped. Two years later the company diversified into private label products, supplying biscuits to the health foods division of Booker McConnell.

But in the early 1980s disaster struck. In 1981 the Government extended VAT to cover carob coated products. These accounted for half the company's turnover. At the same time raw material prices rocketed. This prompted a sharp rise in biscuit prices, and a consequent fall in sales.

The company regained lost ground by broadening its base of both customers and products. Private label production has been extended to Boots, Sainsbury and Nestle. Overall private label activities now provide 80 per cent of turnover. In the early 1980s production began of "healthy" crunchy bars. Initially these bars were made by hand in the factory but now account for 50 per cent of turnover.

Jungle Bar—the recent innovation devised as a healthy alternative to chocolate

Northumbrian is still active in the product development field. It aims to introduce between 20 and 30 new products a year and uses the flexibility of its small production base to do so. A recent innovation is the Jungle Bar, a fruity chewy bar devised as a healthy alternative to chocolate which additive conscious parents can buy for their children.

In its last financial year, to March 31, Northumbrian produced pre-tax profits of £361,000 on turnover of £3.5m. In the current year it should muster profits of £450,000.

After the share placing, through the stockbrokers Earnshaw Haes and Penney Easton, it will be valued at around £4.5m.

Northumbrian decided to go public in July after narrowly missing a takeover opportunity. In retrospect Mr Adams is convinced that an offer of shares would have helped. Once the flotation is completed the company is eager to embark upon acquisitions among the privately owned companies which make up the fertile "cottage" industries of fine foods and wholefoods.

FINANCIAL TIMES STOCK INDICES

	Nov. 28	Nov. 27	Nov. 26	Nov. 25	Nov. 24	Nov. 21	1986 High	1986 Low	Since Compilation High	Since Compilation Low
Government Secs.	81.75	81.77	81.08	81.11	81.32	81.00	94.51	80.39	127.4	49.18
Fixed Interest	88.55	88.55	88.34	88.29	88.42	88.15	97.68	86.55	150.4	50.53
Ordinary	1292.2	1286.0	1286.3	1270.4	1282.6	1274.2	1425.9	1094.3	1425.9	49.4
Gold Mines	314.5	302.2	299.7	295.2	291.7	311.5	357.8	185.7	734.7	43.5
FT-Act All Share	815.34	813.07	812.59	806.11	812.36	807.63	832.99	664.42	832.99	61.92
FT-SE 100	1636.7	1632.5	1633.0	1619.3	1636.5	1624.9	1717.6	1370.1	1717.6	986.9

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

Abbey Unit Tst. Mngrs. (a)
80 Holdenhurst Rd, Bournemouth 0345 717373

	Bid Price	Offer Price	+ or −	Yield Gross
High Income				
American Income	47.5	50.5	.....	5.25
Gilts & Fixed Int.	104.2	110.2	−2.2	10.89
High Inc Equity	94.7	100.7	+0.9	3.14
Worldwide Bond	200.0	214.0	+0.8	4.53
Capital Growth				
American Growth	156.5	166.4	−1.9	0.85
Asian Pacific	58.4	62.4	−1.2	1.81
Assets & Exmpt. Tst.	107.2	114.0	+0.4	2.51
Capital Reserve	65.4	65.8	.....	1.93
Commodity & Engy.	91.6	97.4	−1.3	1.17
European Capital	102.6	109.1	+0.5	1.16
General	136.1	144.7	+0.3	2.94
Japan	77.2	82.5	+0.6	0.0
Mastertrust	67.2	71.4	−0.1	2.30
UK Growth Acc Units	149.9	159.4	+1.0	0.98
UK Growth Dist.	103.6	110.2	+0.7	1.42
U.S. Emerging Co's	55.2	59.3	−0.4	0.08
Equitas Prop.	205.0	215.9	+0.9	3.34

Allied Dunbar Unit Trusts PLC (a)(g)
Allied Dunbar Centre, Swindon, SN1 1EL.
(0793) 28291. Dealing (0793) 610366

Balanced Trusts				
Growth & Inc Trust	132.2	140.3	+0.9	3.23
Capital Trust	223.3	239.3	+0.8	2.89
Balanced Trust	352.7	373.9	−4.1	3.45
Allsom Trust	544.3	577.0	+1.4	3.07
Income Trusts				
American Income Tst.	33.5	35.7	−0.3	4.12
High Income Trust	250.2	265.2	+0.8	4.89
Equity Income Trust	142.2	150.7	+0.4	5.02
High Yield Trust	145.4	154.3	+0.9	5.31
Govt Secs Trust	26.9	27.9	.....	10.32
International Trusts				
Amer Spec Sits Tst	68.8	73.3	.....	1.38
European Growth Tst.	24.9	26.5	+0.1	0.00

Baltic Trust Managers Ltd
20 Chiswell St, London EC1Y 4TY 01-374 6801

American	46.7	49.7	.....	0.68
Australian	22.3	23.8	+0.1	2.22
Japan & Gen.	108.6	115.6	+1.1	0.08
High Income	45.1	48.0	+0.2	5.86
Intnl Trust	87.1	92.7	+0.5	1.40
Income Grth Tst	48.9	52.1	+0.5	3.55
Gilts & Fixed Int	19.9	21.2	.....	10.30
Global Markets Sits	35.0	37.3	+0.1	1.93
Special Situations	42.0	44.7	+0.7	1.34

Barclays Unicorn Ltd(a)(c)(g)
Unicorn Ho. 252 Romford Rd, E7 01-534 5544

Unicorn America	89.0	[illegible]	[illegible]	1.65
Do. Aust. Acc.	170.2	[illegible]	[illegible]	0.92
Do. Aust. Inc.	126.1	[illegible]	[illegible]	0.92
Do. Capital	90.1	[illegible]	[illegible]	3.04
Do. Euro Gwth. Acc	78.6	[illegible]	[illegible]	3.05
Do. Euro Gwth. Inc	78.3	[illegible]	[illegible]	3.05
Do. Exempt Tst.	417.9	[illegible]	[illegible]	4.3
Do. Extra Income	74.6	[illegible]	[illegible]	5.7
Do. Financial	230.5	[illegible]	[illegible]	3.09
Do. 500	266.6	[illegible]	+0.5	3.21
Do. General	138.6	[illegible]	[illegible]	3.25
Do. Gilt & Fxd. Int. Inc.	49.4	[illegible]	[illegible]	10.56
Do. Growth Acc.	179.4	[illegible]	[illegible]	2.20
Do. Income Trust	338.0	[illegible]	[illegible]	3.91
Do. Intl Income Trust	53.2	[illegible]	[illegible]	4.56
Do Japan & Gen Tst Acc.	164.3	[illegible]	[illegible]	0.00
Do Japan & Gen Tst Inc.	162.4	[illegible]	[illegible]	0.00
Do. Leisure Tst.(z)	80.3	[illegible]	[illegible]	1.65
Do. Recovery	196.4	207	[illegible]	2.80
Do. Special Sits. Tst	149.0	[illegible]	[illegible]	2.99
Do. Trustee Fund	105.5	[illegible]	[illegible]	3.05
Do.Univ.Tech.Acc	55.4	[illegible]	[illegible]	0.19
Do. Univ.Tech.Inc.	54.9	[illegible]	[illegible]	0.19
Do. Wwide Trust	153.2	[illegible]	[illegible]	1.15
B'tal.In.Fd.Acc.	334.1	[illegible]	[illegible]	3.46
B'tal.In.Fd.Inc.	213.2	[illegible]	+0.9	3.46

Baring Fund Managers Ltd
PO Box 156, Beckenham, Kent BR3 4XQ 01-658 9002

Australia Tst.	79.2	84.7	+0.2	0.3
Eastern Tst.	72.2	77.2	+0.1	0.3
Equity Income Tst	57.9	61.5	+0.2	5.8
Europe Tst.	137.5	146.2	+0.8	1.0

Bridge Fund Managers (a)(c)
20, Copthall Avenue, London, EC2R 7PA. 01-588 6064.

Amer. Gen. Inc.†	74.8	81.3	.....	0.00
Do. Acc†	75.8	82.4	.....	0.35
Income*	155.8	167.5	.....	5.30
Capital Inc.‡	128.7	138.4	.....	1.75
Do. Acc.‡	168.9	181.6	.....	1.75
Exempt*	283.0	304.0	.....	1.85
Intl. Recovery Inc.‡	33.5	36.0	.....	3.91
Do. Acc.‡	45.4	48.8	.....	3.91

Dealing *Tues. ‡Wed. †Thur. Prices Nov 25/26/27
Britannia Unit Trust Managers Ltd—see MIM Britannia Unit Trust Managers Ltd

Brown Shipley & Co Ltd (a)(g)
9-17 Perrymount Rd, Haywards Hth 0444 412262/3/4/5

B.S. Portfolio Fnd	63.0	67.0	.....	3.00
B.S. Accum	106.3	113.1	.....	3.00
European Fund	23.6	25.2	.....	0.73
Financial	129.4	137.6	.....	2.61
German	36.8	39.4	.....	0.42
High Income	66.0	70.6	.....	5.76
Income	76.6	81.9	.....	4.68
North American	56.6	60.5	.....	1.46
Orient	84.2	90.1	.....	0.23
Recovery	45.8	49.0	.....	1.85
Smaller Cos Fd Accum	233.5	249.5	.....	0.99
Smaller Cos Fd Inc	140.0	159.3	.....	0.99
Technology	132.8	141.3	.....	0.32

Brycourt Unit Trust Mgmt Ltd(a)(c)(d)
Hesketh Hse, Portman Sq, W1H 0JR 01-935 6382

Income Growth	140.3	145.4	.....	4.64

Buckmaster Management Co Ltd (a) (c)
The Stock Exchange, London EC2P 2JT 01-588 2868

Fellowship Tst Nov 24	50.4	53.4	.....	3.00
(Accum Units) Nov 24	50.4	53.6	.....	3.00
General Inc Nov 27	219.7	229.4	.....	3.92
Accum Units Nov 27	353.9	369.7	.....	3.39
Income Nov 26	102.4	107.3	.....	5.05

FS Investment Managers Ltd
190 West George St, Glasgow 041-332 6462

FS Balanced Gwth Fd	43.7	46.5	.....	1.4
Do (Accum)	44.7	47.5	.....	1.4
FS Inc Grwth Fd	41.0	43.6	.....	5.0
Do (Accum)	43.0	45.7	.....	5.0
Smaller Co's Fd	51.3	54.6	.....	1.0
Do (Accum)	52.2	55.5	.....	1.0

Fidelity Investment Services Ltd
River Walk, Tonbridge TN9 1DY
0732 361144 Dealing 0800 414181

American (z)	107.2	[illegible]	+0.1	0.74
Amer. Eq. Inc.(z)	35.4	37	.....	4.38
Amer. Spec. Sits (z)	55.0	[illegible]	.....	0.68
Australia Trust (z)	32.5	34	−0.1	1.41
European Trust(z)	45.3	[illegible]	+0.5	0.00
Far East Inc Tst (z)	35.9	[illegible]	+0.2	4.04
Gilt & Fxd Int (z)	28.4	[illegible]	+0.3	9.95
Growth & Inc Tst (z)	96.1	[illegible]	+0.5	4.64
Japan Special Sits (z)	99.6	[illegible]	+0.6	0.00
Japan Trust (z)	140.5	[illegible]	+2.4	0.00
Managed Int. Tst (z)	141.9	[illegible]	+0.4	0.05
Mtn. Inc. Eq. Tst. (z)	20.6	22	+0.1	5.14
Professnl Grwth Tst (z)	32.9	[illegible]	+0.3	2.34
South E. Asia Tst (z)	41.5	[illegible]	−0.1	0.26
Special Sits (z)	170.2	[illegible]	−0.2	0.97

Robert Fleming & Co Ltd
25 Copthall Ave, London EC2R 7DR 01-638 5858

†Am Exempt (25/11)	£371.82	378.12	.....	1.39
†General Exempt (25/11)	£105.45	107.79	.....	3.34
†Jap Exempt (25/11)	£438.99	447.72	.....	0.01
†Am Prop Trust (15/5)		$10.789	.....	5.00
†Prop Trust (29/9)		£2.025	.....	5.80

†Unauthorised

Framlington Group (a)
3 London Wall Bldgs, EC2M 5NQ 01-628 5181

Amer. & Gen.	218.2	[illegible]	.....	—
(Accum. Units)	223.0	[illegible]	.....	—
Am. T'around	206.2	[illegible]	.....	1.24
(Accum. Units)	213.6	[illegible]	.....	1.24

FT CROSSWORD PUZZLE No. 6,191

HIGHLANDER

ACROSS

1 Quiet: that's somebody for Baker (6)
4 Oval is lacking something assumed to be there (8)
9 Prone to get embarrassed about German music (6)
10 Type of paint container with dairy produce inside (8)
11 Piece of masonry representing tree-god of ancient Rome (6)
12 Badly floored by beginner? Nonsense (8)
13 Was Victor running after wife? (3)
14 You retreat on hearing ladies' guardian (6)
17 Decoration might hang on this noble order (7)
21 Run into group taking late breakfast (6)
25 Barren plain (3)
26 Miner is wrong about hard race (8)
27 To quote me about that is sickening (6)
28 Heard and told stories about military weapon (8)
29 The way individuals find diamonds (6)
30 Cheers up lads, it appears wrongly (8)
31 Stress there's a grave one in France (6)

DOWN

1 Robber has to edge round royal retreat (8)
2 He always remembers the plane disintegrating (8)
3 Follow instructions as pronounced by article on Church suspension (8)
5 Support given to one working with old Army group (6)
6 *Part of it contains ideas for* contents (6)
7 Hypothesis held by politician is explosive (6)
8 Unresponsively evasive about misplaced legal qualification (6)
12 Abandoned in favour of grass, one hears (7)
15 The hour in the morning for food (3)
16 Live round: take note and fall back (3)
18 English moderate in charge is retiring (8)
19 Illustration is in position (8)
20 Well-built, very friendly place (8)
22 Prince providing verbal encouragement (6)
23 Holiday sports body is split about rearranging ties (6)
24 Does he intend to make that conclusion? (3, 3)
25 Go over a shortcoming (8)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

INSURANCES

AUTHORISED UNIT TRUST & INSURANCES

American Life Insurance Co UK
2-8 Altyre Road, Croydon CR9 2LG 01-680 7181

Alpha Range—Life				
Managed Acc	94.6	99.5	+0.6	—
American Acc	100.0	105.3	+0.2	—
Deposit Acc	99.3	104.6		—
European Acc	110.5	116.3	+0.1	—
Far Eastern Acc	120.3	126.1	+1.2	—
Fixed Interest Acc	82.5	86.9	+1.5	—
International Acc	108.0	113.7	+0.4	—
Property Acc	117.0	123.2	+0.8	—
UK Equity Acc	92.4	97.3	+0.5	—
Alpha Range—Pensions				
Managed Acc	96.9	102.0	+0.7	—
Premier Range				
Managed Acc—Life	102.8	108.2	+0.3	—
Managed Acc—Pension	104.1	109.5	+0.4	—

Other unit prices available from American Life

Baltic Assurance Funds
20, Chiswell St, London, EC1Y 4TY 01-374 6801

Managed Growth	251.89	265.15	+2.02	—
Managed Income	120.17	126.49	+0.64	—

Barclays Life Assur. Co Ltd
252 Romford Road, London E7 01-534 5544

Barclaybond	354.1	[illegible]	[illegible]	—
Managed Accum.	300.2	[illegible]	[illegible]	—
Equity Accum	436.3	[illegible]	[illegible]	—
Property Accum	206.8	[illegible]	[illegible]	—
International Accum	272.7	[illegible]	[illegible]	—
Gilt-edged Accum	194.9	[illegible]	[illegible]	—
Money Accum	176.2	[illegible]	[illegible]	—
American Accum	180.1	[illegible]	[illegible]	—
Australia Accum	158.9	[illegible]	[illegible]	—
Financial Accum	203.4	[illegible]	[illegible]	—
"500" Accum	219.5	[illegible]	+0.[illegible]	—
European Grwth Accum	146.5	[illegible]	[illegible]	—
Income Accum	242.6	[illegible]	[illegible]	—
Japan & Gen Accum	312.2	[illegible]	[illegible]	—
Leisure Accum	149.9	157.[illegible]	[illegible]	—
Spec Sits Fd Accum	122.2	128.[illegible]	[illegible]	—
Universal Tec Accum	109.8	[illegible]	[illegible]	—
Managed Pen Accum	400.9	[illegible]	[illegible]	—
Equity Pen Accum	146.2	[illegible]	+0.[illegible]	—
Intnl Pen Accum	152.9	[illegible]	[illegible]	—
Gilt-edged Pen Accum	277.9	[illegible]	[illegible]	—
Money Pen Accum	255.9	[illegible]	[illegible]	—
Property Pen Accum	107.2	[illegible]	[illegible]	—

For prices of Initial Units please 01-534 5544.

Cornhill Insurance PLC
57 Ladymead, Guildford 0483 68161

Equity Fd(A&B) Nov 26	253.0	266.5	----	—
Fixed Int(A&B) Nov 26	162.0	171.0	----	—
Man Growth(A&B) Nov 26	526.5	554.5	----	—
Money Fd (A&B) Nov 26	142.5	150.0	----	—
Cap Fd(A&B) Nov 15	400.0		----	—
G.S. SpecFd(A&B)Nov15	266.0		----	—
FarEastEqty(A&B)Nov 26	181.0	191.0	----	—
N.Amer.Eqty(A&B)Nov 26	106.5	112.5	----	—
IntTechnlg(A&B)Nov 26	155.0	163.5	----	—
Property (A&B) Nov 26	195.5	206.0	----	—

Credit & Commerce Life Ass. Ltd
74 Shepherds Bush Green, W12 8SD 01-740 7070

Life Funds				
UK Equity	143.0	150.8	+0.3	—
American Equity	122.5	129.2	----	—
Far East Equity	162.3	171.2	----	—
Managed Fund Acc	369.0	389.0	----	—
International Equity	189.3	199.7	----	—
Gilt Edged	179.5	189.3	----	—
Money Fund	144.5	152.4	+0.1	—
CCL Henderson	160.1	168.9	----	—
CCL Perpetual	201.0	212.0	----	—
CCL Property	226.1	238.5	----	—
Smaller Cos	250.3	264.0	----	—
Perpetual Europgrowth	118.1	124.5	----	—
CCL Hend'son Prime Res	97.6	102.9	----	—

Criterion Assurance Group
Swan Court, Petersfield, Hants 0730 63280

Ultimate Mngd Fund	172.4	181.5	----	—
Criterion Mngd Fund	165.6	174.3	----	—
Pension Mngd Cap	52.0	54.7	----	—
Pension Mngd Acc	61.3	64.6	----	—
Pension G'teed Dep Ac	34.6	36.4	----	—

For closed Fund sub. prices ring 0730 63281

Crown Financial Management Ltd
Crown Hse, Woking GU21 1XW 04862 5033

Life Funds				
American Acc	101.3	106.6	(z)	—
Equity Acc	375.7	395.4	(z)	—
European Acc	187.6	197.4	(z)	—
Fixed Interest Acc	208.7	219.6	(z)	—
High Income Acc	355.6	374.3	(z)	—

هكذا من الأصل

INSURANCE, OVERSEAS & MONEY FUNDS

OFFSHORE AND OVERSEAS

MANAGEMENT SERVICES

World Fund S.A.
2 Boulevard Royal, Luxembourg
World Fund NAV .... $18.79 | ... | —

World Wide Growth Management
10a, Boulevard Royal, Luxembourg
Worldwide Gth Fd .... $16.74 | ... | —
Inv. Adv.: M. & G. Inv. Mngt. Ltd. London

Yamaichi Capital Mngt (Guernsey) Ltd
22 Smith St, St Peter Port, Guernsey. 0481 25765
Japan Mega Growth .... 5 | ... | —

Yamaichi Dynamic Mngt Co SA
10A Boulevard Royal, Luxembourg
Advanced Tech .... $16.48 | ... | —
Dynamic Gwth Fd .... $19.05 | ... | —

Zero Bond Fund Limited
PO Box 208, St Peter Port, Guernsey 0481 26268
Zero Bond Fund .... $12.20 12.89 | ... | —

Money Market Trust Funds

	Gross	Net	Gr Equiv CAR	Int Cr
Charities Aid Fndtn Money Mngmt Co Ltd				
Staple Hall, Stone Ct, Houndsditch, EC3 01-283 6461				
CAFCASH Call Fund	10.76	8.04	11.82	3-mth
CAFCASH 7-day Fund	10.25	7.66	11.25	3-mth
The Charities Deposit Fund				
2 Fore Street, London EC2Y 5AQ 01-588 1815				
Deposit	10.50 (10.92CAR)			3-Mth
The Money Market Trust				
63 Qn Victoria St, EC4N 4ST. 01-236 0952				
Call Fund	10.93	8.17	11.90	6mth
7-day Fnd	10.65	7.98	11.63	6mth
Oppenheimer Money Management Ltd				
66 Cannon St, EC4N 6AE. 01-236 1425				
Call Fnd	10.52	7.86	11.28	6-Mth
7-day Fund	10.14	7.58	10.87	6-Mth
Dollar	4.87	3.64	5.21	6-Mth

Money Market Bank Accounts

	Gross	Net	Gr Equiv CAR	Int Cr
Adam & Co. plc				
22 Charlotte Sq, Edinburgh EH2 4DF 031-225 8484				
Full Service Cur Acc	10.25	7.50	10.86	Qtr
Aitken Hume				
30 City Road, EC1Y 2AY. 01-638 6070				
Treasury Acc	10.25	7.66	11.10	Qtr
MthlyIntChq £1000-£5000	10.00	7.48	10.90	Mth
Mth. Int. Chq. £5,000+	10.25	7.66	11.18	Mth
Allied Arab Bank Ltd				
97-101 Cannon St, London, EC4N 5AD 01-283 9111				
High Int. Cheque Acc	11.00	8.22	12.03	Mth
Bank of Scotland				
38 Threadneedle St, EC2P 2EH. 01-628 8060				
Money Mkt Cheque Acc	10.25	7.66	11.18	Mth
Barclays Prime Account				
PO Box 125, Northampton 0604 252891				
High Int. Cheque	10.00	7.50	10.86	Qtr

NOTES

TRADITIONAL OPTIONS

3-month call rates

Industrials	p		
Allied-Lyons	27	NEI	8
Amstrad	15	Nat West Bk	48
BAT	35	P & O Dfd	45
BOC Grp	28	Plessey	16
BSR	11	Polly Peck	16
BTR	26	Racal Elect	15
Babcock	16	RHM	24
Barclays	42	Rank Org Ord	45
Beecham	40	Reed Intnl	25
Blue Circle	55	STC	13
Boots	22	Sears	12
Bowaters	32	TI	40
Brit Aerospace	42	TSB	8
Brit. Telecom	17	Tesco	36
Burton Ord	26	Thorn EMI	42
Cadburys	17	Trust Houses	15
Charter Cons	24	Turner Newall	18
Comm Union	28	Unilever	140
Courtaulds	26	Vickers	36
FNFC	17	Wellcome	17
Gen Accident	75	**Property**	
Gen Electric	15	Brit Land	15
Glaxo	85	Land Securities	30
Grand Met	40	MEPC	32
GUS 'A'	85	Peachey	24
Guardian	75	**Oils**	
GKN	24	BOM	3½
Hanson Tst	18	Brit Petroleum	50
Hawker Sidd	42	Burmah Oil	32
ICI	75	Charterhall	4
Jaguar	42	Premier	3½
Ladbroke	32	Shell	65
Legal & Gen	20	Tricentrol	8
Lex Service	32	Ultramar	17
Lloyds Bank	38	**Mines**	
Lucas Inds	46	Cons Gold	62
Marks & Spencer	18	Lonrho	22
Midland Bk	48	Rio T Zinc	62
Morgan Grenfell	26		

LONDON SHARE SERVICE

BRITISH FUNDS

"Shorts" (Lives up to Five Years)

Five to Fifteen Years

Over Fifteen Years

Undated

Index-Linked

INT. BANK AND O'SEAS GOVT. STERLING ISSUES

CORPORATION LOANS

COMMONWEALTH & AFRICAN LOANS

LOANS

Building Societies

Public Board and Ind.

Financial

FOREIGN BONDS & RAILS

AMERICANS

AMERICANS—Cont.

CANADIANS

BANKS, HP & LEASING

Hire Purchase, Leasing, etc.

BEERS, WINES & SPIRITS

BUILDING, TIMBER, ROADS

BUILDING, TIMBER, ROADS—Cont.

CHEMICALS, PLASTICS

DRAPERY AND STORES

DRAPERY & STORES—Cont.

ELECTRICALS

ENGINEERING

ENGINEERING—Continued

FOOD, GROCERIES, ETC

HOTELS AND CATERERS

INDUSTRIALS (Miscel.)

INDUSTRIALS—Continued

INDUSTRIALS—Continued

LEISURE—Continued

PROPERTY—Continued

INVESTMENT TRUSTS—Cont.

FINANCE, LAND—Cont.

MINES—Continued

Dividends Paid		Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—		Anglo Utd	27	14.7	—	—	—
	—	♥Colby Res Corp.	38	—	—	—	—
Aug.	Feb.	Cons. Murch. 10c	£17⅞	14.7	Q60c	4.4	9.9
	—	♯Ennex Int. Ir10p	42	—	—	—	—
—		Greenwich Res.	156	—	—	—	—
Apr	Oct	Hampton Areas 10p	146	23.12	ϕ1.0	—	1.0
	—	♥Highwood Res.	216	—	—	—	—
Fb Jun Ag Nv		Homestake Mining $1	£17½	29.10	Q30c	—	0.8
—		♥McFinley Red Lake	193	—	—	—	—
	—	♥Musto Explorations	204	—	—	—	—
—		♥New Sabina Res C$1	38	—	—	—	—
—		Northgate C$1	295	9/77	—	—	—
Jan.	July	RTZ	668	27.10	22.0	2.4	4.6
Jan	July	Do. 9½pcLn'95-2000	£140¼	27.10	Q9½%	15.5	f6.9

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution; this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 29 per cent and allow for value of declared distribution and rights.

- ● "Tap Stock".
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- ♦ Figures or report awaited.
- ♥ Not officially UK listed; dealings permitted under Rule 535(4)(a).
- ♯ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- ¶¶ Dealt in under Rule 535(3).
- ≠ Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ϕ Merger bid or reorganisation in progress.
- ϕ Not comparable.
- ϕ Same interim: reduced final and/or reduced earnings indicated.
- ϕ Forecast dividend; cover on earnings updated by latest interim statement.
- † Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ☆ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ‖ No par value.

B.Fr. Belgian Francs. Fr. French Francs. ϕϕ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Annualised dividend. b Figures based on prospectus or other offer estimate. c Cents. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast, or estimated annualised dividend rate, cover based on previous year's earnings. v Subject to local tax. w Dividend cover in excess of 100 times. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1986-87. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1986. K Dividend and yield based on prospectus or other official estimates for 1987-88. L Estimated annualised dividend, cover and p/e based on latest annual earnings. M Dividend and yield based on prospectus or other official estimates for 1985-86. N Dividend and yield based on prospectus or other official estimates for 1985. P Figures based on prospectus or other official estimates for 1983. Q Gross. R Forecast annualised dividend, cover and p/e based on prospectus or other official estimates. T Figures assumed. W Pro forma figures. Z Dividend total to date. Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xc ex capital distribution.

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

Albany Inv 20p	60	+2	Fin. 13% 97/02	£96¼	.....
Craig & Rose £1	£15¾	.....	Arnotts	265xd	.....
Finlay Pkg. 5p	47	+1	CPI Hldgs.	39	.....
Holt (Jos) 25p	810	.....	Carrol Inds.	138	+2
IoM Stm. £1	75	.....	Dublin Gas	11	.....
			Hall (R. & H.)	95	.....
IRISH			Heiton Hldgs.	27	.....
Fund 11¾% 1988	£96¾	.....	Irish Ropes	140	.....
Nat. 9¾% 84/89	£91⅝	.....	Unidare	255	−3

"Recent Issues" and "Rights" Page 27
(International Edition Page 25)

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £875 per annum for each security.

CONSTRUCTION

Crossing the Bosporus

BY JOAN GRAY, CONSTRUCTION CORRESPONDENT

The giant French construction company BOUYGUES is studying the possibility of building a £321m (FFr 3bn) road and rail tunnel under the Bosporus, the straits which divide the European and Asian halves of Turkey's capital Istanbul.

The tunnel would be the first ever below the straits. Bouygues has agreed to complete a feasibility study of the project by December 15.

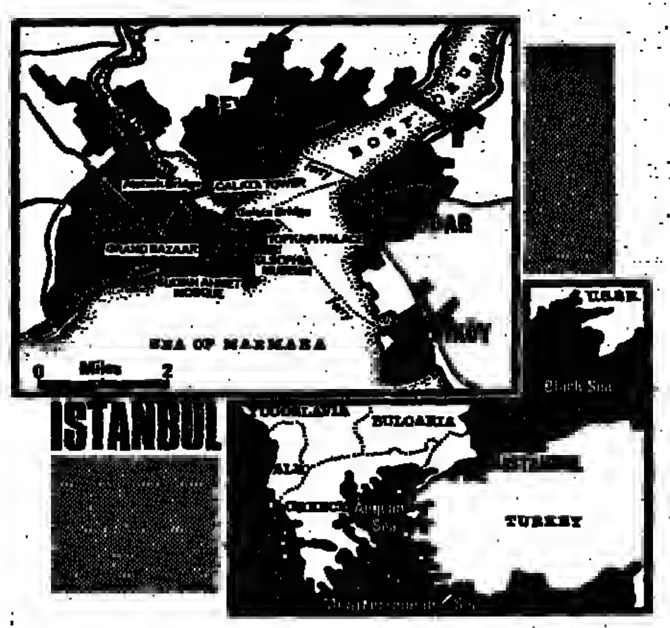
Details of the project will then be discussed by the company and municipal officials, said Mr Atanur Oguz, Istanbul's municipal secretary general.

If it went ahead, the tunnel would provide a third Bosporus crossing to supplement the existing overloaded suspension bridge and the second bridge which is still only under construction but is predicted to become overloaded in the early 1990s.

The municipality of Istanbul has already discussed the possibility of a third Bosporus crossing—another bridge in this case—with the British contractor Trafalgar House, the runner-up in the bidding to build the second bridge.

Trafalgar House has formed a partnership with the Turkish contractor Enka to bid for building a third Bosporus bridge—at an estimated cost of £268m—early in the 1990s.

Since their proposal was said to have been "favourably received" by the Turkish government and "accepted in principle" by the Istanbul municipality, the Bouygues feasibility study came as some surprise.



The Istanbul municipality's announcement of its contract with Trafalgar has already caused the company considerable embarrassment as the scheme was only in its earliest stages and the company wanted to keep its idea secret from potential rivals.

Now the Bouygues tunnel—which would include a six-lane road and two fast-tram tracks—is the first competing scheme for a third crossing to be made public.

Bouygues would be asked to bear the construction costs and recover its expenses from tolls on the route before handing it over to the Turks, said Mr Oguz.

Trafalgar and its Cleveland Bridge subsidiary were beaten in the bidding for the second Bosporus bridge by a consortium of Japanese, Turkish and Italian companies.

The Japanese bid of $551m (£456m) for the single-span bridge and approach roads was far below the $678m bid by the Trafalgar consortium.

It was also backed by a substantial—and controversial—aid package, which the UK government could not match.

Wates win Cromwell Road plan

WATES CONSTRUCTION (LONDON) has secured orders worth over £24m. All are in the private sector and include retail, commercial and residential work. The largest, valued at £11.2m, is the management contract for construction of a mixed commercial and residential project at the junction of Cromwell Road and Earls Court Road. This includes excavation of a road to construct an underground car park, reinstatement of the road and then construction of a bridge block over the road. The commercial element comprises 30,000 sq ft offices and a banking hall and the residential development includes 79 flats in two blocks with three penthouses and 10 town houses. The development is being undertaken by Wates Built Homes in conjunction with Parkridge Investment.

At the junction of St Martin's Lane and Charing Cross Road a contract valued at around £4.5m is to build two office blocks for CEMP Properties (UK). One of the blocks is totally new while the other is to be rebuilt behind a retained facade.

In the City the contract for National Mutual Life Assurance Society covers demolition and erection of six-storey offices in a link block and refurbishment of offices at Windsor House, 39 King Street, EC4.

At Brighton Marina on part of the recently in-filled inner marina, Wates has a £8.9m contract to construct a Gateway superstore. In addition to the usual sales hall, preparation, storage and administrative areas there will be a restaurant and surface car parking.

*

TANDATA has been awarded Phase 1 of the renovation contract at London's Grosvenor Hotel. Worth £325,000, Phase 1 comprises alternations to form 11 bedrooms, and ancillary works.

*

CRITTALL WINDOWS, a member of the Norcros Group, has won its largest single order for £1.4m worth of Luminair aluminium windows. The contract involves manufacturing windows and supplying glass and glazing for South Glamorgan County Council's new county hall, under construction in the dockland area of Cardiff. The building, costing around £24m will have five storeys, and is due for completion in May 1988.

£36m order for Gleeson

M. J. GLEESON GROUP has won contracts in the north and south totalling more than £36m. Two road building projects for the Department of Transport, the A303 at Thruxton in Hampshire to Amesbury in Wiltshire, (9.6 kms) and the A27 at Fontwell, West Sussex (3.4 kms) have a combined value of £12.5m. At Roadford, Devon, for the South West Water Authority, Gleeson has started work on the £2.1m road and viaduct contract prior to the award of the new Roadford Reservoir which will inundate the existing road. Also in the south east the group has procured works at the Imperial War Museum, Chessington Zoo and structures at Stevenage for Greycoat Shopping, the total value being £2.8m.

M. J. Gleeson (Northern) has contracts for finishing works at Haysham power station for the Central Electricity Generating Board worth £3.5m and sewage treatment works at Cumnock, Strathclyde valued at £1.4m; three contracts for reservoir repairs at Horsforth in Yorkshire, Ladybower and Foremark in Derbyshire, worth a total of £1.5m and a new £1.5m reservoir at Dunblane for Central Scotland Water Development Board. Refurbishment and new build housing for local authorities and housing associations throughout the north accounts for contracts worth a total of £5m and in Grimsby the company is constructing new Crown Courts for the PSA valued at £2.9m.

Two recently acquired companies—Powerminster in the north and Concrete Repairs in London—have been awarded projects totalling nearly £2m for mechanical engineering works and concrete repairs.

Balfour Beatty build for BA

BALFOUR BEATTY BUILDING has been awarded four further contracts by British Airways, for whom the company has been working fo rthe past five years. A steel-framed simulator building wil be constructed at Cranebank, Hounslow, under a £2.6m contract for completion by November 1987. At Speedbird House, Heathrow Airport, alterations are underway to computer rooms under a £527,000 cootract due for completion in February 1987. At tho Runway Restaurant, also at Heathrow, rofurbishment, redecoration and repairs are underway to the catoring fecilitios which include work on the beating and electrical installations. Tho £322,000 contract will be completed by the year end. At Torminal 1, altorations and refurbisbment of e three-storey engineering service building to form a *fleet maintenance facility* will be carried out requiring work to the mochanical and electrical installetions additionally. A contract valned at £1.65m has been placed by Manchester Canal and Business Park Development Corporation on land forming part of the dockyard area of the Manchester Ship Canal for construction of three single-storey industrial units and three two-storey pavilioo units. Work will be completed by mid-April 1987. The company has been awarded a £6.392m contract by London & Metropolitan Estates *for the construction of two hi-tech* units, roads and landscaping at Watchmoor Park, Camberley. The two-storey units will extend to 8,850 sq metres and be con*structed in both reinforced con*crete and structural steel. The external walls will be double glazed using anti-sun solar glass.

*

G. PERCY TRENTHAM, Pangbourne, has won contracts worth over £17m including the refurbishment of an botel in London; construction of high-tech units in Newbury; and a four-storey office block on Putney Hill. Less conventional jobs in a mixod "portfolio" of now work include the conversion of a church in Abingdon into offices, the creation of offices in o former manufacturing complex for Michelin, and the superstructure of the Towngate Theatro, Basildon.

*

The Department of Transport has awarded BALFOUR BEATTY CONSTRUCTION the A303 South *Petherton-Broadway* (Ilminster Bypass) contract, valued at £12.86m. This involves construction of 14 kms of 12 metre wide single carriageway in rigid construction, nine bridges, two roundabouts, flood alleviation measures and earthworks involving excavation of about 900,000 cu metres. Work starts in *January for completion by April* 1988.

Contracts and Tenders

WANDSWORTH BOROUGH COUNCIL INSTALLATION OF CENTRAL HEATING AND HOT WATER SYSTEMS AT WENDELSWORTH ESTATE, LONDON, SW18

Contractors wishing to be considered for selection to tender for the installation of individual gas-fired boilers serviced radiators and domestic hot water systems *to 232 occupied flats* at Wendelsworth Estate, London, SW18, should submit names to the Director of Administration, Room 111, Town Hall, Wandsworth High Street, *SW18 2PU, by 22nd December* 1986, quoting reference DH/3.

The work will involve the removal of redundant equipment together with all associated builders' work and electrical work.

Applicants must provide the following information:

(a) details of labour force and technical and supervisory staff available;

(b) names and addresses of three technical and two financial referees and the names of the Company's Bankers;

(c) *details of similar heating work undertaken by the firm during the last three years;*

(d) copies of the Company's audited accounts for the last two years; and

(e) the Company's policy documents/procedures relating to site safety in line with the Health and Safety at Work etc. Act, 1974.

(N.B. Applications should refer only to the above-mentioned Scheme, and must not incorporate replies to other advertisements placed by Wandsworth Borough Council. Late applications will not be considered.)

It is anticipated that specifications and drawings will be issued to selected contractors in February 1987 and that the contract *will commence in May 1987.*

The engineering consultancy services for the Scheme will be provided by Messrs. Harding McDermott and Partners, Skyline House, 200 Union Street, London SE1 0LX, under the direction of R. J. Sheppard, Director of Housing, Town Hall, Wandsworth High Street, London SW18 2PU.

G. K. JONES.
Director of Administration

BASE LENDING RATES

	%		%		%
ABN Bank	11	Citibank NA	11	● Morgan Grenfell	11
Adam & Company	11	Citibank Savings	¶12.45	Mount Credit Corp. Ltd	11
Allied Arab Bk Ltd	11	City Merchants Bank	11	Nat Bk. of Kuwait	11
Allied Dunbar & Co	11	Clydesdale Bank	11	National Girobank	11
Allied Irish Bank	11	Comm. Bk. N. East	11	Nat Westminster	11
American Exp. Bk	11	Consolidated Cred	11	Northern Bank Ltd	11
Amro Bank	11	Co-operative Bank	*11	Norwich Gen. Trust	11
Henry Ansbacher	11	Cyprus Popular Bk	11	PK Finans. Intl (UK)	11½
ANZ Banking Group	11	Duncan Lawrie	11	Provincial Trust Ltd	12
Associates Cap Corp	11	E. T. Trust	12	R. Raphael & Sons	11
Banco de Bilbao	11	Equator'l Tst C'p plc	11	Roxburghe G'rantee	11½
Bank Hapoalim	11	Exeter Trust Ltd	11½	Royal Bk of Scotland	11
Bank Leumi (UK)	11	Financial & Gen. Sec	11	Royal Trust Bank	11
Bank Credit & Comm	11	First Nat. Fin. Corp	11½	Standard Chartered	11
Bank of Cyprus	11	First Nat. Sec. Ltd	11½	Trustee Savings Bank	11
Bank of Ireland	11	● Robert Fleming & Co	11	UDT Mortgage Exp.	¶12.25
Bank of India	11	Robert Fraser & Ptrs	12	United Bk of Kuwait	11
Bank of Scotland	11	Grindlays Bank	‡11	United Mizrahi Bank	11
Banque Belge Ltd	11	● Guinness Mahon	11	Westpac B'nking Corp	11
Barclays Bank	11	HFC Trust & Savings	11	Whiteaway Laidlaw	11½
Benchmark Tst Ltd	11	● Hambros Bank	11	Yorkshire Bank	11
Beneficial Trust Ltd	12	Heritable & Gen. Tst	11		
Berliner Bank AG	11	● Hill Samuel	§11		
Brit. Bk. of Mid. East	11	C. Hoare & Co	11		
● Brown Shipley	11	Hongkong & Shang'i	11		
CL Bank Nederland	11	Knowsley & Co. Ltd	11½		
Canada Permanent	11	Lloyds Bank	11		
Cayzer Ltd	11	Mase Westpac Ltd	11		
Cedar Holdings	12	Meghraj & Sons Ltd	11		
● Charterhouse Bank	11	Midland Bank	11		

● Members of the Accepting Houses Committee. * 7-day deposits 6.69%. 1-month 7.03%. Top Tier—£2,500+ at 3 months' notice 10.03%. At call when £10,000+ remains deposited. ‡ Call deposits £1,000 and over 6¾% gross. ¶ Mortgage base rate. § Demand deposit 6.69%. Mortgage 12¼%.

WORLD STOCK MARKETS

AUSTRIA

[illegible]

BELGIUM/LUXEMBOURG

[illegible]

DENMARK

[illegible]

GERMANY

[illegible]

SWEDEN

[illegible]

NORWAY

[illegible]

FRANCE

[illegible]

NETHERLANDS

[illegible]

SWITZERLAND

[illegible]

SPAIN

[illegible]

FINLAND

[illegible]

AUSTRALIA

[illegible]

SINGAPORE

[illegible]

SOUTH AFRICA

[illegible]

HONG KONG

[illegible]

JAPAN

[illegible]

ITALY

[illegible]

NOTES—Prices on this page are as quoted on the individual exchanges and are last traded prices. # Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all. * Price in Schillings.

CANADA

TORONTO

Closing prices November 28

[illegible]

F—No voting rights or restricted voting rights.

MONTREAL

Closing prices November 28

[illegible]

Total Sales 4,811,214 shares

OVER-THE-COUNTER

Nasdaq national market, closing prices, November 28

Continued from Page 33

[illegible]

Indices

NEW YORK

DOW JONES	Nov. 28	Nov. 26	Nov. 25	Nov. 24	Nov. 21	1986 High	1986 Low	Since Comp High	Since Comp Low
♦Industrials	1914.23	1916.76	1912.12	1906.07	1893.56	1919.71 (4/9)	1502.29 (22/1)	1919.71 (4/9/86)	41.22 2/7/32
H'me Bnds.	99.81	99.69	92.71	92.48	92.61	92.81 (28/11)	83.75 (14/1)	—	—
Transport	845.91	844.75	846.13	844.50	838.88	846.65 (5/11)	686.97 (9/1)	848.65 5/11/86	12.32 8/7/32
Utilities	213.09	212.29	212.81	213.27	211.46	219.15 (20/8)	169.47 (22/1)	219.15 20/8/86	10.5 8/4/32

♦Day's High 1923.51 (1926.46) Low 1903.62 (1895.11)

STANDARD AND POOR'S	Nov. 28	Nov. 26	Nov. 25	Nov. 24	Nov. 21	1986 High	1986 Low	Since Comp High	Since Comp Low
Composite ‡	249.22	248.77	248.17	247.45	245.86	253.3 (27/8)	203.49 (22/1)	253.3 27/8/86	4.40 1/6/32
Industrials	277.73	277.36	276.32	275.38	276.65	282.24 (2/7)	224.48 (22/1)	282.24 (2/7/86)	3.62 21/6/32
Financials	27.48	27.58	27.30	27.28	27.12	31.13 (14/3)	25.19 (22/1)	31.13 14/3/86	8.64 1/10/74
N.Y.S.E. COMPOSITE	142.57	142.33	142.06	141.59	140.94	145.75 (4/9)	117.75 (22/1)	145.75 4/9/86	4.462 25/4/74
AMEX. MKT VALUE	264.81	263.51	263.74	263.45	262.95	285.19 (26/6)	246.30 (4/2)	285.19 25/6/86	29.13 9/12/74
NASDAQ OTC COMP.	359.57	358.15	358.95	356.10	354.65	411.16 (3/7)	323.01 (9/1)	411.16 3/7/86	54.87 3/10/74

DIVIDEND YIELDS	Nov. 21	Nov. 14	Nov 7	Oct. 31	year ago (approx)
Dow Industrial	3.64	3.68	3.65	3.66	4.32

	Nov. 19	Nov. 5	Oct. 28	Oct. 22	year ago (approx)
S and P Industrial	2.96	2.96	3.04	3.08	3.62
S and P ind P/E ratio	17.73	17.69	17.24	16.99	13.38

TRADING ACTIVITY

Millions	Nov. 28	Nov. 26	Nov. 25
Volume † New York	94.49	151.99	154.57
Amex	5.72	11.79	9.58
O.T.C.	—	105.95	113.62

New York	Nov. 28	Nov. 26	Nov. 25
Issues Traded	1,917	2,003	2,009
Rises	799	704	846
Falls	624	818	719
Unchanged	494	481	438
New Highs	—	36	39
New Lows	—	21	26

CANADA

TORONTO	Nov. 28	Nov. 27	Nov. 26	Nov. 25	Nov. 24	1986 High	1986 Low
Metals & Minerals	2085.46	2084.9	2082.4	2096.5	2106.8	2442.8 (21/8)	1917.4 (5/8)
Composite	3045.8	3031.9	3025.1	3026.6	3028.9	3129.1 (18/4)	2754.6 (17/2)
MONTREAL Portfolio	1544.2	1540.0	1533.7	1535.7	1540.2	1625.5 (18/4)	1386.6 (22/1)

	Nov. 28	Nov. 27	Nov. 26	Nov. 25	1986 High	1986 Low
AUSTRALIA						
All Ord. (1/1/80)	1379.8	1371.1	1363.8	1359.8	1403.5 (7/11)	1010.8 (2/1)
Metals & Mnls. (1/1/80)	671.2	666.7	665.2	655.9	713.9 (21/10)	481.1 (20/1)
AUSTRIA						
Creditbk Aktien(30/12/64)	234.22	233.51	233.7	233.35	266.64 (23/4)	226.58 (5/3)
BELGIUM						
Brussels SE (1/1/64)	4022.61	4021.22	4008.01	3962.59	4091.86 (13/11)	2768.81 (15/1)
DENMARK						
Copenhagen SE(3/1/83)	—	192.62	189.28	190.55	250.75 (19/4)	186.28 (11/11)
FINLAND						
Unitas Genl. (1975)	413.8	410.7	408.7	408.7	417.7 (9/10)	258.8 (2/1)
FRANCE						
CAC General (31/12/82)	394.9	394.4	393.2	392.9	412.5 (1/8)	267.8 (2/1)
Ind Tendance (31/12/82)	156.5	155.5	155.5	154.5	158.0 (28/8)	101.6 (2/1)
GERMANY						
FAZ Aktien (31/12/58)	686.96	688.48	681.65	683.69	753.88 (17/4)	583.92 (22/7)
Commerzbank (1/12/53)	2071.2	2072.5	2057.4	2065.5	2278.6 (17/4)	1782.4 (22/7)
HONG KONG						
Hang Seng Bank(31/7/64)	2418.76	2354.33	2377.71	2381.12	2418.76 (28/11)	1559.94 (19/3)
ITALY						
Banca Comm. Ital.(1972)	722.58	(u)	716.29	716.35	908.20 (20/5)	454.57 (24/1)
JAPAN**						
Nikkei (16/5/49)	18063.6	17893.66	17727.91	17,747.5	18936.2 (20/8)	12881.0 (21/1)
Tokyo SE New (4/1/68)	1490.98	1475.20	1457.89	1457.83	1586.35 (20/8)	1025.85 (21/1)
NETHERLANDS						
ANP.CBS General (1970)	284.9	284.2	283.3	284.8	301.0 (6/8)	240.4 (3/3)
ANP.CBS Indust (1970)	283.5	284.4	283.7	285.6	303.9 (19/8)	254.0 (3/3)
NORWAY						
Oslo SE (4/1/83)	377.38	377.82	379.93	382.27	482.91 (16/1)	331.61 (4/8)
SINGAPORE						
Straits Times (30/12/66)	868.89	875.20	882.68	889.26	940.64 (5/11)	565.34 (28/4)
SOUTH AFRICA						
JSE Gold (28/9/78)	—	1915.6	1825.0	1790.0	2081.0 (19/9)	1109.1 (21/4)
JSE Indust (28/9/78)	—	1392.0	1384.6	1366.0	1419.8 (12/11)	1018.5 (2/1)
SPAIN						
Madrid SE (30/12/85)	191.52	191.32	188.46	185.98	208.79 (8/10)	100.65 (6/1)
SWEDEN						
Jacobson & P (31/12/56)	2500.07	2521.70	2514.19	2500.24	2672.78 (7/11)	1729.57 (28/1)
SWITZERLAND						
SwissBankCpn (31/12/58)	588.60	586.5	583.7	586.2	625.5 (8/1)	497.2 (4/8)
WORLD						
M S. Capital Intl.(1/1/70)	—	347.7	348.5	345.8	350.6 (1/9)	249.8 (23/1)

**Saturday November 29: Japan Nikkei 18,325.5, TSE 1,488.87.

Base value of all indices are 100 except Brussels SE—1,000, JSE Gold—255.7, JSE Industrial—264.3, and Australia, All Ordinary and Metals—500. NYSE All Common—50; Standard and Poors—10; and Toronto Composite and Metals—1,000. Toronto Indices based 1975 and Montreal Portfolio 4/1/83. † Excluding bonds. ‡ 400 Industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. u Unavailable.

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day
Ohio Edison	3,930,000	20⅜	− ⅛
Chase - Ponds	3,137,300	65½	+4
Xerox	2,327,200	60½	− ½
Florida Prog	2,321,100	42¼	− ⅛
Texas Util	2,076,500	32½	⅛
Pseg	1,314,400	42⅛	− ⅛
USX	1,112,000	21⅛	− ⅛
ATT	1,012,900	27⅛	+ ⅛
Union Ele	1,001,900	30⅛	− ⅛
E. F. Hutton	920,100	43⅝	+1⅛

Closing prices, November 28

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
25⅝	15	AAR s	.44	1.9	16	451	23⅜	23½	23½	-⅜
30	21¾	ADT	.92	3.5		350	26½	26¼	26½	
33	15	AFG s	.12i	.4	14	186	25⅜	25	25	-⅜
25½	16¾	AGS			16	43	25¼	24¾	24¾	-⅜
15	7¾	AMCA				2	7¾	7¾	7¾	⅛
62⅛	39⅝	AMR			14	709	56⅝	56⅛	56⅜	
24¾	20⅛	ANR pf	2.12	8.8		12	24	24	24	
16¾	10	ARX	.71t	6.5	10	86	11	10⅞	11	
41½	28¾	ASA	2a	5.4		405	37	36⅝	36¾	+1⅛
18⅝	9¾	AVX		2.6		86	12⅝	12¼	12¼	+⅛
66	25½	AZP	2.72	9.3	9	805	29¼	28⅞	29⅛	+⅛
28	30¼	AbtLb s	.84	1.8	21	1885	47¼	46¾	47⅛	-⅜
32	23⅝	AccoWd	.58	2.1	17	627	27⅛	26¾	27	+¼
14⅞	6	AcmeC	.40	3.8		86	10½	10¼	10½	
23⅝	17½	AdaEx	4.45e	21.		35	20¾	20⅝	20¾	+¼
33⅝	19½	AdmMl	.40	1.7	18	19	27¾	27¾	27¾	
20⅝	12⅛	AdvSyst	.45t	9.4	14	6	16½	16½	15½	
32⅞	12⅞	AMD				1019	16¾	15⅝	15⅝	⅛
12⅝	5¼	Adobe				47	6	6	6	⅛
20¼	16⅝	Adob pf	2.40	14.		7	17¼	17¼	17¼	
16⅝	10	Advest	.12a	.9	19	116	13⅞	13¾	13¾	+⅛
66¾	49⅞	AetnLf	2.64	4.6	9	1824	58	57⅜	57⅜	-⅛
56⅛	51½	AetL pf	3.94e	7.5		15	52⅞	52¾	52⅞	+⅛
28¾	18	Ahmns	.48	2.3	6	2367	20¼	19⅞	20¼	+¼
5¼	2¼	Aileen			48	27	3⅜	3⅛	3⅛	
41⅝	30⅛	AirPrd s	.28	2.2456		382	36½	36¼	36½	
32	16	AirbFrt	.60	2.2	19	347	27¼	27½	27½	-¼
20⅝	16½	Airlea n				88	18⅞	18⅝	18⅞	+¼
2	¼	AlMoanl	.60c			5	13-32	13-32	13-32	
29	25⅝	AlaP pf	1.94e	7.4		200	26⅜	26¼	26⅜	⅛
10¾	6	AlaP dpf	.87	8.5		31	10⅜	10¼	10¼	

Continued on Page 33

NYSE COMPOSITE CLOSING PRICES

Continued from Page 32

[illegible]

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close	Chg
50¼	54	Xerox pf5.45	9.6			36	57⅛	56⅞	56⅞	−¼
29¾	20¾	XTRA .64	2.9			6	22⅛	22⅛	22⅛	−¼
18¾	13½	Yorkln n				30	17¼	17	17⅛	+⅛
49⅞	28½	ZaleCp 1.40	2.8			1325	49½	49½	49½	
38¾	22½	Zale pfA .80	2.8			1	u38⅝	38⅝	38⅝	+⅜
9½	2¼	Zapata .03j				418	2⅝	2½	2½	−⅛
43⅞	20¾	Zayre s .32	1.2	19		2804	26¾	26⅜	26½	−⅜
17	9⅝	Zemex .40	3.1	20		71	12⅞	12⅝	12⅞	+⅛
28⅞	17⅞	ZenithE				160	20¾	20½	20½	−⅛
18¼	8	ZenLb s		63		393	15½	9⅞	10⅛	+¼
22⅜	12⅜	Zero s .29	2.0	15		264	14¾	14¼	14¾	+⅝
45⅝	32¾	Zurmin 1.32	3.2	16		32	40⅞	40⅝	40⅞	+¼
10⅜	6½	Zweig n				201	9¼	6⅝	9⅝	

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 per cent or more has been paid, the year's high-low range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividends are annual disbursements based on the latest declaration.

a-dividend also extra(s). b-annual rate of dividend plus stock dividend. c-liquidating dividend. cld-called. d-new yearly low. e-dividend declared or paid in preceding 12 months. g-dividend in Canadian funds, subject to 15% non-residence tax. i-dividend declared after split-up or stock dividend. j-dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k-dividend declared or paid this year, an accumulative issue with dividends in arrears. n-new issue in the past 52 weeks. The high-low range begins with the start of trading. nd-next day delivery. P/E-price-earnings ratio. r-dividend declared or paid in preceding 12 months, plus stock dividend. s-stock split. Dividends begin with date of split. sls – sales. t-dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u-new yearly high. v-trading halted. vi-in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd-distributed. wi-when issued. ww-with warrants. x-ex-divident or ex-rights. xdis-ex-distribution. xw-without warrants. y-ex-dividend and sales in full. yld-yield. z-sales in full.

AMEX COMPOSITE CLOSING PRICES

Closing prices, November 28

[illegible]

OVER-THE-COUNTER

Nasdaq national market, closing prices November 28

[illegible]

Continued on Page 31

CURRENCIES, MONEY & CAPITAL MARKETS

FOREIGN EXCHANGES

Dollar falls on political and economic news

THE DOLLAR is hovering in a position of renewed weakness, and although the market was reluctant to take the US currency to new lows last week, it did finish on Friday at the lowest level since January 1981 against the D-mark, and has been *forecast to fall to $1.95 this week.* The dollar closed at DM 1.9730 on Friday, compared with the previous 5½-year low of DM 1.9740 set in mid-October. The lowest trading level at that time was DM 1.9685. On Friday the US currency fell to a trading low of DM 1.9700, but the market lacked the incentive to continue the downward trend. Trading was thin, with New York tempted to extend Thursday's Thanksgiving holiday into a long weekend.

But although last week's trading was restricted by a holiday in the US, and the closure of Tokyo for a public holiday on Monday, the general impression was that the dollar would come *under further pressure* this week.

It was probably the worst month that President Ronald Reagan can remember. His Republican Party lost control of the Senate, and the Democrats are now in control of both Houses within the US Congress. *This could have hardly happened* at a worse time, with two members of the present Administration becoming casualties of the Iran arms sale scandal, and the diversion of funds to the Nicaraguan rebels. There is no guarantee that the President's problems over Iran will soon end, and the ghost of Watergate still stalks the corridors of power in Washington.

Apart from the political situation, dealers also saw little comfort in the US economic picture. The October trade deficit of $12.06bn was at the lower end of the forecast range. Dealers expected a shortfall of $12bn to *$15.5bn, with the median at* around $13.5bn to $14bn, and although the figures appeared to be moving in the right direction, the revision of September's deficit caused some concern. This was revised up to $14.74bn from $12.56bn, leading to doubts that the steady decline of the dollar over the past year had finally reversed the the worrying US trade position.

The trade deficit was expected to be the most important economic announcement from the US last week, but it had little impact, because of the lower October figure coupled with the upward *revision for September.*

A sharp fall in US durable goods orders had more impact. These fell by a very large 6 per cent in October, against forecasts of around 1.5 per cent. Even taking out defence orders the figures fell 2.7 per cent, compared with a revised rise of 4.8 per cent in September.

The durable goods announcement took the dollar back below DM 2.00, and this week's economic news is not expected to produce any sharp recovery. According to Money Market Services October consumer speeding, to be announced today, will fall 0.4 per cent. *Tomorrow's October leading indicators* are forecast to rise 0.3 per cent to 0.5 per cent, compared with 0.4 per cent in September, and factory goods orders on Thursday will fall 0.6 per cent.

The only bright news of the week may be US unemployment, which MMS suggests will be 8 per cent in November, compared with 7 per cent in October.

As last week ended a further weakening of the dollar seemed inevitable, with dealers watching the relatively stable rate against the yen to decide whether the strains were becoming too great to keep the recent agreement between the US and Japan from falling apart.

£ IN NEW YORK

Nov 28	Close	Previous Close
£ Spot	1.4340-1.4350	1.4290-1.4300
1 month	0.58-0.57 pm	0.56-0.53 pm
3 months	1.81-1.79 pm	1.79-1.74 pm
12 months	7.80-7.70 pm	6.35-6.25 pm

Forward premiums and discounts apply to the U.S. dollar.

STERLING INDEX

	Nov. 28	Previous
8.30 am	68.1	68.0
9.00 am	68.1	67.9
10.00 am	68.1	68.0
11.00 am	68.1	68.0
Noon	68.1	68.0
1.00 pm	68.0	68.0
2.00 pm	68.1	68.0
3.00 pm	68.1	68.2
4.00 pm	68.1	68.1

CURRENCY MOVEMENTS

November 28	Bank of England Index	Morgan Guaranty Changes %
Sterling	68.1	−25.8
U.S. Dollar	110.0	+2.6
Canadian Dollar	77.1	−12.7
Austrian Schilling	134.8	+9.5
Belgian Franc	98.0	−5.3
Danish Krone	90.9	+3.0
Deutsche Mark	143.9	+20.3
Swiss Franc	168.2	+21.2
Guilder	131.6	+13.5
French Franc	71.3	−12.2
Lira	48.5	−15.3
Yen	204.6	+52.3

Morgan Guaranty changes: average 1980-1982=100. Bank of England Index (Base average 1975=100).

CURRENCY RATES

Nov. 28	Bank rate %	Special Drawing Rights	European Currency Unit
Sterling	—	N/A	0.732623
U.S. Dollar	5.5	N/A	1.05205
Canadian $	8.49	*	1.45656
Austrian Sch.	4	N/A	14.6350
Belgian Franc	8	N/A	43.2523
Danish Krone	7	N/A	7.85458
Deutsche Mark	3½	N/A	2.07990
Neth. Guilder	4½	N/A	2.35080
French Franc	9½	N/A	6.81306
Italian Lira	12	N/A	1442.09
Japanese Yen	3.0	N/A	170.379
Norway Krone	8	N/A	7.90771
Spanish Peseta	—	N/A	140.711
Swedish Krona	7½	N/A	7.23861
Swiss Franc	4	N/A	1.73062
Greek Drach.	20½	N/A	145.246
Irish Punt	—	N/A	0.764291

* C$/SDR rate for Nov. 27; N/A

OTHER CURRENCIES

Nov. 28	£	$
Argentina	1.6900-1.6965	1.1770-1.1810
Australia	2.2060-2.2090	1.5370-1.5380
Brazil	20.2545-20.3695	14.1070-14.1770
Finland	7.0000-7.0195	4.8800-4.8820
Greece	196.27-199.72	136.74-139.05
Hong Kong	11.1700-11.1805	7.7825-7.7845
Iran	108.75*	76.90*
Kuwait	0.4205-0.4215	0.29380-0.29400
Luxembourg	58.85-58.95	41.05-41.15
Malaysia	3.7315-3.7370	2.6000-2.6020
N. Zealand	2.8090-2.8190	1.9570-1.9630
Saudi Ar.	5.3815-5.3895	3.7500-3.7505
Singapore	3.1480-3.1530	2.1935-2.1955
S. Af. (Cm)	3.1845-3.2080	2.2100-2.2200
S. Af. (Fn)	6.5250-6.8360	4.5455-4.7620
U.A.E.	5.2685-5.2775	3.6725-3.6735

* Selling rate.

FORWARD RATES AGAINST STERLING

	Spot	1 mth	3 mths	6 mths	12 mths
US Dollar	1.4290	1.4278	1.4158	1.3980	1.3670
D-mark	2.8425	2.8277	2.7984	2.7550	2.6775
French Fr.	9.2650	9.2396	9.2034	9.1451	9.0404
Swiss Fr.	2.3550	2.3405	2.3134	2.2730	2.1980
Yen	232.25	230.99	228.48	224.88	218.26

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu central rates	Currency amounts against Ecu November 28	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc	43.1139	43.2523	+0.32	+1.09	±1.5368
Danish Krone	7.81701	7.85458	+0.48	+1.25	±1.6403
German D-Mark	2.11083	2.07990	−1.47	−0.70	±1.1127
French Franc	6.87316	6.81306	−0.87	−0.10	±1.3659
Dutch Guilder	2.37833	2.35080	−1.16	−0.39	±1.5059
Irish Punt	0.764976	0.764291	−0.09	+0.68	±1.6683
Italian Lira	1476.95	1442.09	−2.36	−1.94	±4.0734

Changes are for Ecu, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

EXCHANGE CROSS RATES

Yen per 1,000: French Fr per 10: Lira per 1,000: Belgian Fr per 100.

EURO-CURRENCY INTEREST RATES

Long-term Eurodollars: Two years 6½-6⅝ per cent; three years 7-7⅛ per cent; four years 7⅜-7½ per cent; five years 7⅝-7¾ per cent nominal. Short-term rates are call for US Dollars and Japanese Yen; others, two days' notice.

POUND SPOT—FORWARD AGAINST THE POUND

Belgian rate is for convertible francs. Financial franc 59.25-59.35. Six-month forward dollar 3.58-3.53 c pm. 12-month 6.70-6.60 c pm.

DOLLAR SPOT—FORWARD AGAINST THE DOLLAR

† UK and Ireland are quoted in US currency. Forward premiums and discounts apply to the US dollar and not to the individual currency.
Belgian rate is for convertible francs. Financial franc 41.60-41.70.
†† CORRECTION; Closing rate for Lira on November 27 was 1378¼-1379¼.

LIFFE £/$ OPTIONS
£25,000 (cents per £1)

Strike Price	Calls—Last Dec.	Jan.	Feb.	Mar.	Puts—Last Dec.	Jan.	Feb.	Mar.
1.30	13.69	13.69	13.69	13.69	0.00	0.01	0.07	0.21
1.35	8.69	8.69	8.69	8.69	0.00	0.12	0.46	0.86
1.40	3.69	3.71	3.90	4.03	0.06	0.92	1.72	2.43
1.45	0.32	1.13	1.54	1.80	1.92	3.34	4.36	5.20
1.50	0.00	0.20	0.45	0.65	6.60	7.41	8.27	9.05
1.55	0.00	—	—	0.19	11.60	—	—	13.59
1.60	0.00	—	—	0.05	16.60	—	—	18.45

Estimated volume total, Calls 140 Puts 125
Previous day's open int. Calls 2,647 Puts 2,970

LONDON SE £/$ OPTIONS
£12,500 (cents per £1)

Strike Price	Calls—Last Dec.	Jan.	Feb.	March	Puts—Last Dec.	Jan.	Feb.	Mar.
1.35	8.70	8.70	8.70	8.75	0.15	0.25	0.50	0.85
1.40	3.70	3.90	4.15	4.50	0.25	1.00	1.70	2.35
1.45	0.50	1.15	1.50	1.80	2.20	3.45	4.35	5.10
1.50	0.15	—	—	0.65	6.80	—	—	8.95
1.55	0.25	—	—	0.45	13.70	—	—	16.10
1.60	0.25	—	—	0.25	18.70	—	—	20.90
1.65	0.70	—	—	1.50	18.70	—	—	20.20

Previous day's open int: Calls 2,403, Puts 999
Volume: 0

PHILADELPHIA SE £/$ OPTIONS

LIFFE—EURODOLLAR OPTIONS

LIFFE LONG GILT FUTURES OPTIONS

LIFFE US TREASURY BOND FUTURES OPTIONS

LIFFE FT-SE 100 INDEX FUTURES OPTIONS

LONDON

CHICAGO

CURRENCY FUTURES

POUND—$ (FOREIGN EXCHANGE)

Spot	1-mth.	3-mth.	6-mth.	12-mth.
1.4335	1.4278	1.4158	1.3980	1.3670

MONEY MARKETS

Tone remains nervous in London

UK clearing bank base lending rate 11 per cent since October 15

THE STRUCTURE of interest rates on the London money market continued to underpin the present 11 per cent level of UK bank base rates, but the underlying tone remained nervous, in spite of another very quiet week. There was little change in market rates throughout November, but this was more a reflection the reasonably steady performance by the pound on the foreign exchanges, than any confidence in the future.

The pound gained over 2 cents against the dollar to $1.4335, but weakened against many other currencies, including the D-Mark, to finish the month at DM 2.875, equal to its record closing low.

Some rather *inconclusive* economic statistics began with the October UK money supply figures earlier this month. The figures were distorted by the TSB share issue and by the fact that they were the first based on end of the month rather than mid-month make-up.

Dealers therefore turned their attention to the October trade figures. Forecasts varied quite widely, but most economists did not expect much change in the September visible deficit of £885m. The published figure of £835m was not a surprise, but the upward revision in the *surplus on invisibles to £900m* from the previous monthly figure of £800m was greeted with some scepticism. The current account surplus of £65m failed to cheer the market on Tuesday, and was followed by a particularly depressing picture of the UK economy from the National Institute for Economic and Social Research on Wednesday.

The institute forecast a widening of the current account deficit to £5.6bn in 1987 and to £7.2bn in 1988. It was also predicted that growth would be slow, inflation would rise and there would also be higher public spending.

Interest rates wobbled nervously but finished the week little changed, with three-month interbank at 11⅛ per cent, compared with 11³⁄₁₆ per cent on the previous Friday.

FT LONDON INTERBANK FIXING

(11.00 a.m. Nov.28) 3 months U.S. dollars		6 months U.S. dollars	
bid 6	Offer 6⅛	bid 3 13/16	Offer 6 1/16

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11.00 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

MONEY RATES

NEW YORK
(Closed)

		Treasury Bills and Bonds			
Prime rate	7½	One month	N/A	Three year	N/A
Broker loan rate	7	Two month	N/A	Four year	N/A
Fed. funds	N/A	Three month	N/A	Five year	N/A
Fed. funds at intervention	N/A	Six month	N/A	Seven year	N/A
		One year	N/A	10 year	N/A
		Two year	N/A	30 year	N/A

BANK OF ENGLAND TREASURY BILL TENDER

WEEKLY CHANGE IN WORLD INTEREST RATES

LONDON MONEY RATES

LONDON RECENT ISSUES

EQUITIES

FIXED INTEREST STOCKS

"RIGHTS" OFFERS

SECTION III

FINANCIAL TIMES SURVEY

World Telecommunications

The impact of new technology, coupled with regulatory changes in many countries plus mounting competitive pressures between equipment suppliers is radically altering the shape of the world telecommunication industry.

A whirlwind of change

ONLY A few years ago, the telecommunications industry across the world presented a somewhat neat and tidy image of a business which fitted smoothly into tha parameters of a natural monopoly.

True, there were complaints in many countries about the qnality of service and the delays in hringing new lines into operation. But the task of wiring the world for the telephone seemed one that was ideally adapted to centralised control and nniform management. Today, this certainty over the shape of the industry is being swept away as telecommnnications throughout the industrialised West heads into a period of painful re-adjustment.

Technology has radically altered tha economics of the industry, both for the providers of service and the manufacturers. Users, meanwhile, are eqnally making new and more testing demands on the telephone providers as their need for more sophisticated communication grows.

Furthermore, Governments have become less certain about the virtues of puhlic service monopolies, and mnch more supportive of ideas of competitive efficiency.

These different pressures have entirely changed the debate about the future of the indnstry. Ten years ago, the hig question in many countries was how long it took to persuade the local telephone company to install a new line: indeed, it was only in the mid-1970s that the then-President Giscard d'Estaing of Franca put his reputation on the tine to force through a crash programme to expand his country's national network.

Yet, whila installation delays *may still be a concern*, the issues facing the industry today are very different. They fall broadly into two main areas: what degree of competition should be injected into tha system, on one hand? And how should equipment manufacturing be organised, on the other?

The first question — the issue of how to introduce competition to tha system — is proving just as difficult to resolve, as the critics of change said it would. The problem is relatively straightforward. On the one

By Terry Dodsworth

hand, it may be that competition would, as the reformers claim, generate more responsiveness and innovation in the industry.

Bnt on the other, the hasic provision of lines is easiest to arrange in most cases through a single system; and once that supply is established, it is more simple to channel other services through it in a monopoly organisation, under soma kind or regulation.

Indeed, unlike some other industries that are being subjected to radical change as new technologies and new world markets are opened up, telecommunications is irretrievably inter-twined with questions of public policy.

In the early days of the telephone business, governments came to see it as a strategic resource. More recently, many countries overtly or tacitly encouraged socially-oriented policies aimed at pntting moderately-priced telephones within the reach of anyona who wanted one.

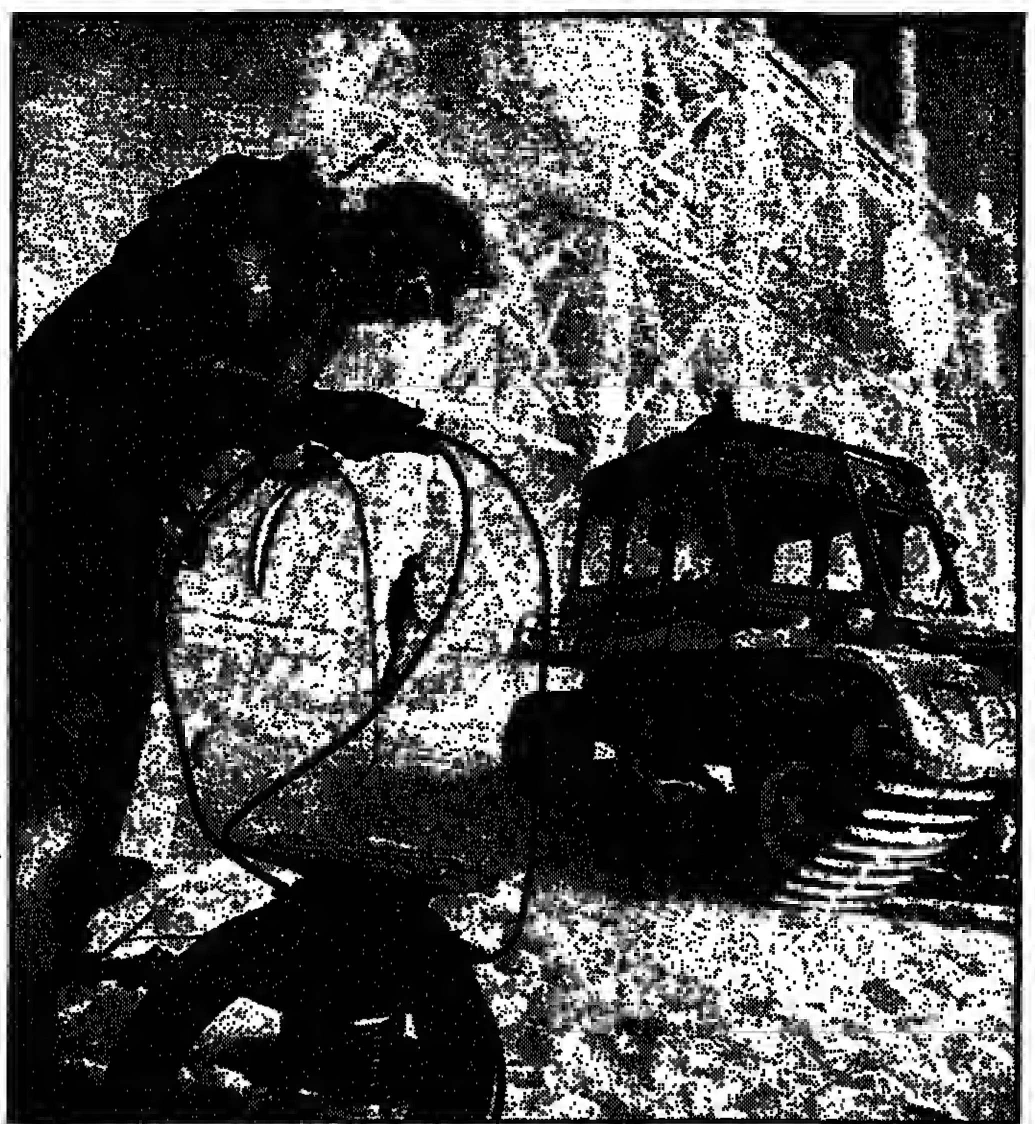
Most pricing systems were skewed, through some sort of monitoring or regulatory system, to allow long-distance calling, supported mainly hy business users, to subsidise private residantial lines.

Even in the US, where market forces generally hold more sway, the social objective of providing a telephone for the lonely farmar living in remote areas was built into a powerful argument for subsidising local services by long-distance callers.

The way in which governments achieved these social and organisational aims differed from country to conntry so that at present, as some of the regulatory structura begins to be dismantied, the changes are also extremely variahle.

In the US, for example, the break-up of AT&T has imposed an arbitrary division between the local and long-distance telephone operations, hnt it has left a large slice of equipment manufacturing, which in most countries is organised in separate companies, in the hands of tha AT&T long-distance group. Meanwhile, the local groups are barred from both the equipment and long-distance areas.

In the UK, however, competition is being introduced through licensing an alternative operating company while controlling prices so that the new company has a fair chance of estahlishing itself. Japan appears to be heading in the same direction. Some European countries, meanwhile give the impression that there will be moves towards wider choice within the framework of a single supplier of telephone systems.



● Ice coats the aerials at Britain's biggest radio station, on top of a Scottish mountain at Greenlowther, in Dumfries and Galloway. British Telecom engineers, who maintain the station at 2,400 ft above sea level, use a Snow-trac vehicle in bad winter weather.

As deregulation puts down roots in several countries, it still remains to be proven whether customers receive better services from a tightly-organised monopoly or a free-reined competitive system.

Even in the US, where deregulation has gone furthest, and where the regulators are making an enthusiastic push to liberalise local telephone company operations as well as the long-distance network, it is difficult to prove the case either way.

The greater variety of services and equipment now available has also led to rising confusion among the public, and indications of a decline in some service standards. For example, it may now take longer to have a new line installed.

The impact of deregulation on supplier companies is now much more clear. Liberalisation is imposing strains on an industrial structure which has already been battered by the imperatives of technological advance, and which is looking outward to a period when the whirlwind of innovation threatens to grow even stronger.

One outcome of regulatory change is that manufacturers are, in some cases, being cut off from the stable, cash-generative section of the telecommunications industry—the telephone operating business. In the US, AT&T used to manufacture equipment, supply it and operate it, so its telephone divisions were always bringing in a steady stream of cash to support its investment in research and development and new products.

In the UK, the forerunner of British Telecom pumped money into the development of new equipment in joint ventures with independent suppliers. These two companies—GEC and Plessey—will have to support future equipment development from their own budgets alone, just like AT&T.

Another result of liberalisation is that equipment producers can no longer be assured of a domestic market in which to cover the costs of the development of their products. The opening of markets means introducing an element of competition across national frontiers which has not been seen in telecommunications before.

Furthermore, as manufacturers examine ways of spreading the cost of developing new equipment — it is estimated, for example, that the next range of public digital switches will cost at least $1bn each—they are faced with a situation in which winning orders in other peoples' backyards is a condition of survival.

The heightening of competitive pressures in this way looks like a recipe for trade friction. Indeed, the signs are that such a struggle is already beginning on a French battlefield after what some now see as a pre-emptive strike by CGE, the owner of CIT Alcatel, the French public switch manufacturer, to take

Continued on Page 3

Leading world manufacturers of telecommunications equipment

Company	Telecommunications sales* 1984 £m
AT & T (US)	7,593
ITT (US)	3,550
Siemens (West Germany)	2,530
Northern Telecom (Canada)	2,460
L. M. Ericsson (Sweden)	2,380
NEC (Japan)	2,010
Alcatel-Thomson (France)	1,935
GTE (US)	1,710
Philips (Netherlands)	893
GEC (UK)	746
Fujitsu (Japan)	744
Plessey (UK)	677
Italtel (Italy)	470

Source: GEC

* Figures for GEC and Plessey include overseas sales and some business systems. Figures for other companies may also include business equipment.
Source: Monopolies and Mergers Commission.

IN THIS SURVEY

US telephone deregulation

Subscribers still have doubts

THREE YEARS after the break-up of AT&T in January 1984, the jury is still out on the impact of US telephone industry deregulation.

One of the most complex reorganisations even forced on a large industrial and commercial structure has been worked through with relative speed and a surprising lack of unpredictable surprises.

But it is by no means clear whether the US will end up regretting the demise of the old Bell system with its ability to deliver a slick national service that was the envy of the world.

The task that was imposed on the authorities in the wake of the Justice Department decision dismembering AT&T was a delicate one. They had to engineer the gradual liberation of the market—and particularly the long-distance business—while avoiding both undisciplined chaos on the one hand, or the re-emergence of the old monopoly structure under a free-market hat on the other.

The problem was essentially one of grappling with the enormous strength of the Bell system—neither shackling it unduly, nor allowing the large installed base and unparalleled service experience of the Bell companies to swamp new competitors before they were established.

The difficulty of maintaining discipline in such a process can best be illustrated by a typical long-distance business call from, say New York, to San Francisco. In the post break-up environment, this will start off in an office on a telephone set which may well have been built in South Korea, and be transferred to the outside world via a switchboard which could have been acquired from any number of companies, but which would, under the traditional system, have been supplied by AT&T.

The call will then go to the facilities of the local telephone operating company, a descendant of the Bell system, which will route it on to a long-distance carrier.

For these trunk lines there are now several possibilities, ranging from the numerous small operators (who lease lines or sell them) to the big players—AT&T, with about 80 per cent of the market, MCI and US Sprint.

In California, for example, the long-distance company will transfer the call to another local operating group, which will send it via more customer equipment—possibly a Hong Kong-made handset, to the recipient of the call in San Francisco.

This operating structure is clearly more complex than using AT&T from beginning to end—complications which inevitably gave considerable grounds for scepticism at the time of the break-up.

First, the critics argued, such a system was likely to be less easy to run and simple to understand for the consumer. There was a strong possibility that the enviable speed and efficiency which AT&T had established in installing and maintaining lines would be sacrificed for a more cumbersome organisation. Opponents contended that there would be long delays in services because there would be a confusion of responsibility over various bits of the network.

Second, there was a fear that prices for local users could rise exorbitantly—some said by as much as 300 per cent—as a result in the decline of the subsidy for the residential network from long-distance calling.

The old system, the critics claimed, was more logical and socially responsible, allowing virtually anyone to have a telephone because local rates were kept down. In such an industry, they argued, it made more sense to control prices through the regulatory process, rather than the market place.

None of the changes has proved as drastic or as damaging as the critics had suggested, however. This is partly because the regulatory process is still there, with the Federal Communications Commission (FCC) in Washington controlling the introduction of new long-distance services, and the local Public Service Commissions maintaining a grip on the regional operating companies. The change to a multi-supplier system has also been achieved relatively smoothly, and with some significant improvements to offset the teething troubles.

On the debit side, telephone company officials concede that it now takes longer to install a new service than before the break-up. Delays were particularly acute just after the change in the structure in 1984, and have been reduced considerably since then as the telephone companies have shaken down their new organisations.

Business probably suffers most because private dedicated lines and Wide Area Telecommunications Services (WATS) tend to demand the co-ordination of several companies (the local operating groups, the long-distance network, and equipment suppliers), rather than the one-stop AT & T organisation of yesteryear.

US telecom sales forecasts

Sector	1986	1990
● Premises equipment in $m		
Terminal equipment	3,226	4,428
Data communications equipment	3,679	6,587
Local area network connections	645	1,000
Switching equipment	5,848	7,642
Attached network functions	776	2,168
● Public telecom sales in $m:		
Transmission equipment	3,699	5,498
Switching equipment	3,112	2,674
Public telecom services	137,462	209,587
Cellular mobile radio	1,200	4,600

Source: Dataquest

Residential rates have also gone up sharply—by around 45 per cent on one estimate—as more of the cost of the local infrastructure has been loaded on to the area where the expenditure is incurred. This is clearly well over the rate of inflation, and has brought a disproportionate part of the "cost" of deregulation to bear on the less well-to-do.

In addition, there is no doubt that deregulation has sown confusion in the public. Some people do not understand the long-distance choices being offered to them. Others are irritated by too much choice—the telephone boxes which now take two or three long-distance cards are often the ones that callers avoid at airports.

On the other side of the coin, however, long-distance rates have fallen rapidly. They are now down by 23 per cent on average over the three-year period, despite the continuation of some access charges on the long-distance companies to link into the local network.

Customers in most of the US can also chose an alternative supplier to AT&T on the long-distance lines, with less hassle than in the past. They no longer have to dial an elaborate code to link into the alternative service before putting through their calls; and they can buy the alternative service for between 8 to 10 per cent less for business customers and up to 35 per cent less in the case of residential clients.

Independent studies suggest that the quality of service is also improving—partly a by-product of the move to fibre optic cables, but one which has probably been hastened by the introduction of a competitive system.

At the same time, product prices have continued to fall dramatically. Private exchange equipment has come down to about $600 a line from $1,000 a line before the break-up.

For the companies that used to comprise the total Bell system, the break-up has produced mixed fortunes, with strong profits from the seven regional holding companies, and a more patchy record from the rump of the old AT&T—now a long-distance operator, equipment manufacturer and research and development company.

The change in structure has given them all the opportunity to slim down and improve their efficiency, with big job reductions which might have been difficult to achieve under the old structure.

"They have been enabled to make changes under the cover of deregulation which they would not have been able to do otherwise," says Mr Francis McInerney, vice president of Northern Business Information, the research group.

The big question mark hanging over the industry now is how much further deregulation will be pushed through in the regions, where the Bell operating companies are still the regulated carriers.

Recommendations

Only a few weeks ago, Mr Mark Fowler, chairman of the FCC and two other officials of the regulatory agency, published a discussion document advocating wholesale liberalisation of the local markets. They recommended that operating companies should have more freedom to set their tariffs, in return for an open network architecture design for the local exchanges that would allow anyone to access the equipment freely.

Mr Fowler argued that there are countless entrepreneurs awaiting to take advantage of such a chance to introduce a variety of services—automatic switch-on for central heating devices, for example, burglar alarms, or over-the-line medical check-ups.

The FCC proposal has not fallen on stony ground, however. Ten states at least have made some form of deregulatory move in the past two years, and Nebraska is pushing for a fairly substantial form of local liberalisation. Not all the local operating companies want more freedom in their own backyards, but some, like US West, for example, have pushed quite hard for it.

These companies want the freedom to introduce new services from which they are banned at present, and perhaps even more important, the ability to alter their tariffs to fight off competitive challenges.

They are all worried, for example, about the by-pass problem, under which businesses set up their own communications networks and completely miss out the public system.

The problem with tariff changes is that they often tend to militate against the weakest customers, the low-volume, frequently remotely-situated, residential users who, unlike business clients, represent a cost rather than a flow of profits to the operating companies. This is the battlefield over which the local deregulation issue will eventually be fought.

Terry Dodsworth

The US financial sector is setting the pace in advanced business telecommunications: left, a section of Salomon Bros' main trading floor in New York

US regional companies

Seven Baby Bells grow up

THE BABY Bells, the seven regional US telephone operating companies born out of the break-up of AT & T almost three years ago, are infants no longer.

Like adolescents developing their own personalities, they are beginning to break out in several different directions, gradually losing the uniformity which characterised their businesses under the old monolithic US telephone regime. But none of them are anywhere near mature as yet, and it is impossible to say what they will look like a decade from now.

For the time being, despite the changes, there are some strong similarities in the way the seven regionals have performed since the break-up. At the time of the reorganisation there was a tendency among investors to think of the local operating groups as rather dull utilities shorn of the glamorous long-distance, equipment and research businesses which remained within AT & T itself.

The predictability of the utility aspects of the regional companies' business, however, has since come to be seen as an attraction—the guarantee of an assured flow of cash from a regulated business that is, as yet, relatively competition-free.

The latest figures from the regional companies demonstrate the continuing strength of this regulated base. Overall, the seven groups have experienced a steady expansion of traffic over their existing networks. The number of new lines coming into service has also advanced moderately, with a particularly strong upsurge in areas which have benefited the most from the patchy growth of the US economy.

Bell South, for example, in the high-growth southeast of the US, has seen strong volume increases, while Nynex, the north eastern regional which embraces the New York and Boston financial centres, has experienced an unexpected boost from the boom in the securities industry.

Nynex, indeed, has had record growth in call volume as well as new customer line installations.

Even US West, which is operating in a difficult economic climate in the region which lies squarely over the Rocky Mountain system from Canada to Mexico, brought 150,000 new lines into service in the third quarter of this year.

Added to this underlying rise in volume, the regionals have also been able to benefit from taking off some of the fat left on them from the AT & T era. They have shed staff universally in the last three years, boosting earnings through cost-cutting and productivity gains.

Southwestern Bell, the regional group based in St Louis, has reduced its workforce by 3,000, or 5 per cent, since the beginning of this year, and is aiming to trim another 1,000 in the final three months of 1986, bringing its payroll cuts to about 13 per cent since 1984.

US West has similarly trimmed its employee ranks by 5,700 over the last 12 months.

The results of the Bell companies have risen in tandem with these benign operating conditions. In the first nine months of this year, Pacific Telesis has generated a 17 per cent increase in net income, while Nynex's profits were up by 11 per cent, and Bell Atlantic's by 8.8 per cent.

Ameritech, based in Chicago amidst the problems of the farm belt and the struggling US manufacturing sector, achieved a 3.8 per cent rise, just a little better than inflation.

Wall Street has responded to this growth and the higher dividends that have flowed from it (most of the operating companies currently pay out about three-quarters of their annual earnings) by pushing up the shares of the operating groups in a way that makes them look anything but the dowdy utilities that were being written about in brokers' circulars three years ago.

Total investment returns for the group—the "magnificent seven"—has averaged better than 30 per cent, including both dividends paid and share price appreciation.

Nynex, at the top of the list, has achieved a 35.4 per cent return up to September 30 of this year, followed by Bell South on 35.1 per cent, while only one of the group has achieved less than 30 per cent for shareholders—Southwestern Bell at 29.9 per cent.

The last three months, however, seem to indicate that some of the easier gains from the break-up have now been digested.

The main diversified activities of each of the operating companies are as follows:

● Ameritech: The Chicago-based group owns Applied Data Research, an IBM computer software company from Princeton, New Jersey, along with profitable publishing and finance activities and a 20 per cent stake in Canadian cellular mobile telephone group.

It is expecting that between 30 per cent and 50 per cent of its annual earnings growth will come from non-regulated telephone activities by 1988.

● Bell Atlantic: An aggressive diversifier, Bell Atlantic has branched out into minicomputer distribution in Canada, and telecommunication equipment marketing in Texas.

It has also moved into financial services, particularly through the purchase of Greyhound Capital from the long-distance coach operator, and a computer leasing group in Europe. Earnings growth in this division could approach 50 per cent of the group's total next year, it says.

● Bell South: With stronger than average growth in its basic business, Bell South has moved cautiously on its diversification programme. It is expanding into national directory sales, has established an in-house real estate business, and has acquired 40 per cent of a cellular and paging company in London.

● Nynex: Nynex has been fighting hard to protect its directory publishing against Southwestern Bell's attempts to break into the lucrative Manhattan market. It is also showing interest in pressing for local deregulation in certain areas in order to offer a broad range of services.

● Pacific Telesis: PacTel, a wholly-owned subsidiary for the group's unregulated activities, has moved into cellular telephones, equipment sales and publishing of visitor guides. It is also expanding in international markets, using its operating know-how to capture contracts in China and South Korea for advice on the 1988 Olympics.

● Southwestern Bell: Trapped in a region which has suffered heavily from the decline in the oil and farming sectors, Southwestern Bell has made a dramatic foray into the cellular phone business with the acquisition of Metromedia's activities in this area for $1.2bn, the biggest single purchase by any of the regionals.

● US West: Also keen to bolster sluggish regulated earnings through diversification, US West has built a diversified activities group consisting of cellular, equipment sales, directory publishing, real estate and financial services.

Its property division holds almost $700m of real estate, while its finance subsidiary is involved in computer leases and receivables, and it is seeking permission to offer insurance and brokerage services.

Terry Dodsworth

AT & T and US regional holding company results

Company	3rd quarter revenue $bn	3rd quarter net income $m	3rd quarter EPS	9 months revenue $bn	9 months net income $m	9 months EPS	access lines
AT & T	8.43	533.0	0.48	25.56	1,484.0	1.52	N.A.
Ameritech	2.3	291.8	3.03	6.99	861.0	8.90	14,693,000
Bell Atlantic	2.5	297.9	1.49	7.3	895.2	4.48	15,406,000
Bellsouth	2.89	399.2	1.26	8.62	1,228.0	3.94	13,000,000
NYNEX	2.87	314.3	1.55	8.39	921.6	4.55	13,845,000
Pacific Telesis	2.31	285.1	1.32	6.79	842.0	3.92	11,940,000
US West	2.14	268.3	1.41	6.22	718.4	3.78	11,880,000
Southwestern Bell	1.96	257.5	2.58	5.89	741.5	7.44	11,076,000

Source: Rivka Nachoma, research Associates

World Telecommunications 3

Long-distance Services in US

Most callers now have a choice

OVER THE last 12 months the US long-distance telephone industry has edged forward towards the brave new competitive world conceived by the anti-trust lawyers in the break-up of AT&T three years ago. The market has become more open and less regulated. Prices have dropped like a stone—by about 23 per cent on the last count.

It is still not clear, however, to what extent the AT&T monolith has been dismantled, or what structure will finally emerge to take its place in this huge, $50bn-a-year business.

The most significant changes fall into two main categories:

• The first is the rapid development of alternative vehicles to the AT&T network. The installation of new equipment to allow these alternatives an equal ability to hook into local exchanges (equal access), now means that about 7 out of 10 Americans can choose to make their calls via a rival carrier.

Customers were canvassed earlier this year to choose their favoured vendor, and by September they had been linked into the service of their choice in areas covering 70 per cent of the country.

Under the new system, users no longer have to go through an elaborate dialling procedure to pick up a non-AT&T service, a procedure which was regarded as a significant disincentive to moving to the new carriers under the old regime.

• Second, the regulatory framework which was designed to put a straitjacket on AT&T during the early part of the break-up period, has been considerably loosened, allowing it to operate on more equal terms with its smaller competitors.

Following the break-up order, AT&T had its enormous market power deliberately blunted by forcing it to pay a higher "access charge" to the local telephone operators than its rivals.

The access charges were a deliberate attempt to levy a kind of tax on the long-distance carriers, who have a preponderance of business customers, to pay for wiring and infrastructure costs at the local level. By this means, administrators aimed to keep prices down so that telephones remained within the financial reach of the poorest families.

To reflect the increasing competition in the market, the higher access charge demanded from AT&T has been steadily reduced, and the charges of its competitors gradually increased, until now there is no differential between the two in some areas.

The change is plunging the long-distance carriers into an environment which is relatively undistorted by regulatory demands. It is consequently becoming more difficult for AT&T's challengers to compete on price alone, undercutting the larger group by taking advantage of its higher access charge.

Other factors are now gaining more prominence in the performance picture—the quality and cost of service, and, the ability to attract sufficient traffic volume to carry the overheads racked up through ambitious expansion plans.

As the terms of the long-distance battle business have changed, it is becoming apparent that the challengers to AT&T's position are still struggling to develop viable alternative businesses. Among the problems they have faced, and in many cases continue to face, are the following:

• The cost of investment to construct sufficiently large networks to compete with AT&T is proving a heavy strain on the financial resources of the newcomers.

MCI, the largest of the alternative long-distance groups, and the company which first began the challenge on AT&T's dominance 25 years ago by winning regulatory approval for a microwave service in St Louis, is spending $1bn a year at present on its long-distance lines.

US Sprint, the second largest of the newcomers, is in the middle of an 18-month long $1.5bn programme.

• AT&T's pricing policy is putting increasing pressure on its rivals. In the equal access areas—the 70 per cent of lines that have been converted to give any long-distance carrier exactly the same switching facilities—the new companies no longer enjoy a discount on the access fee paid to the local operators. This allows AT&T, with its lower fixed costs, to cut prices and try to erode the tariff advantage enjoyed by its competitors.

MCI says that its prices are still about 10 per cent lower than AT&T's across the board, and between 5 and 35 per cent cheaper for residential customers, but maintaining the price differential is severely trimming its margins.

In the other 30 per cent of the US market, the old situation still appertains. Here, the new companies enjoy lower access charges, but continue to suffer from the long-code dialling which customers need to use their services.

• In the advertising battle which has raged this year to secure first choice customers, AT&T has been able to spend much more heavily than its competitors. Some estimates put budgeted spending as high as $500m this year by all the carriers, with AT&T accounting for at least two-thirds.

The alternative carriers complain that they have been at a disadvantage in this campaign partly because they have not been able to target customers so precisely as their larger competitor, which clearly has superior historical knowledge of the market.

In addition, the extra cost has been very considerable for companies of their size—GTE says it will spend about $60m in the last half of the year.

• Most of these questions come down to the problem of size. As AT&T has become less restrained, and has responded by improving its own efficiency to compete with its challengers, they have become more exposed to the strains imposed by their limited scale. The answer has been a wave of mergers among the newcomers.

In the first of these amalgamations, MCI took over the SBS long-distance subsidiary of IBM in a deal in which the computer group also took a minority stake in the communications company.

SBS had started off as an ambitious scheme to transmit voice and data for large business customers, mainly over microwave links, but failed to attract the volume to make it viable.

The deal with MCI has taken SBS into a more conventional cut-price long-distance operation, while holding out the possibility that IBM can use the business as a link in its drive into the market for integrated data and communications.

With the addition of SBS, MCI now claims to have about 4.5m customers, of which 3.6m are residential. It has also managed to increase its penetration among the Fortune 500 companies, bringing its total to 450 companies against 407 at the beginning of the year.

With about 8 per cent of the US market it is still well short of the 15 per cent target it has set itself, and which many analysts think is a necessary condition for survival in the business.

It is pushing ahead with its expansion plans, however, and reckons it will have 5,500 miles of fibre optic cable in the ground by the end of this year, and about 10,000 by the end of 1987.

Similarly, GTE, the big independent telephone operating group, has this year merged its Sprint long-distance subsidiary into United Telecommunications' US Telecom subsidiary in a 50-50 joint venture. This creates a group, US Sprint, with a customer base of around 2.6m and a network of 13,500 miles of fibre optic cable already in the ground.

By the end of next year it is expecting to complete 23,000 miles. The immediate benefit of the *merger to GTE was* to reduce losses running at around $200m a year, while reducing the cash outflow involved in building up the network.

In a much smaller deal, the fourth largest US long-distance carrier was also created about a year ago when Allnet and Lexitel came together to form ACL Communications.

These three newly-merged groups, along with innumerable smaller companies which exist by selling leased spare capacity for the larger networks, have unquestionably made a dent in AT&T's dominant market position.

Estimates indicate that the group's share of US long-distance revenues has deteriorated from a little over 90 per cent of the market two years ago to just over 80 per cent today.

In the recent round of customer polls to select long-distance customers, AT&T is reckoned to have captured around 75 per cent of the vote.

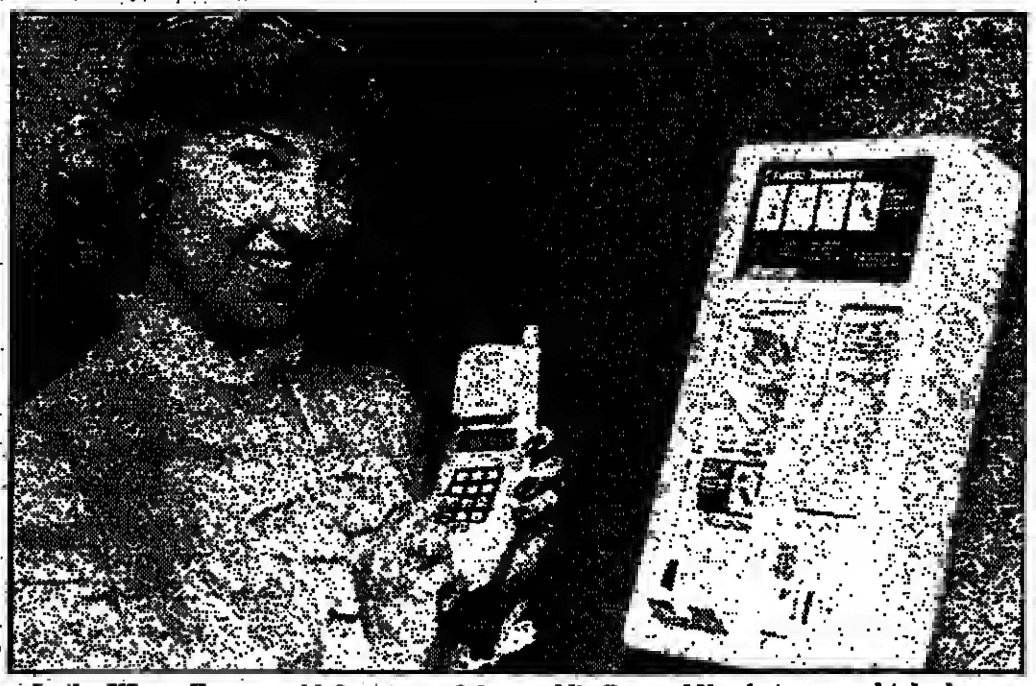
Despite this steady decline in its market position, AT&T's volume of business has still kept growing because of the rapid expansion in the US long-distance market, which has been moving up recently at between 8 and 10 per cent a year.

Many analysts also consider that the group's ability to hold onto 75 per cent of its customers in the recent poll was a victory in itself—at the time of the break-up, some gloom-mongerers were predicting a precipitous decline to only around 60 per cent of the market by this point. And with its large installed base and lower relative costs, it has continued to make profits out of its long-distance lines at a rate which makes its competitors look like also-rans.

Indeed, the main immediate question for the AT&T competitors is whether their finances will hold out long enough to allow them to win a significantly large market base to begin to earn adequate profits.

In a commodity-type business, they need volume to survive. But they are finding it a very expensive business to buy that volume as the Federal Communications Commission takes down some of the defensive screens behind which they were able to grow to their present size.

Terry Dodsworth



In the US a caller uses Airfone, one of the world's first public air-to-ground telephone services available to airline passengers.

US long distance telephone market

Company	1984 Revenue $B	1985 Revenue $B	1986 Est Revenue $B	1989 Proj Revenue $B	1984 Mkt share %	1985 Mkt share %	1986 Est market share %	1989 Proj market share %
AT&T	33.19	34.91	36.00	NA	91.0	86.0	81.0	72.0
MCI	1.96	2.54	3.45	NA	4.0	6.0	8.0	13.0
US Sprint	1.245	1.345	1.500	NA	2.0	3.0	4.0	9.0
Others	3.60	5.20	9.05	NA	3.0	5.0	7.0	6.0
Total market	40.0	44.0	50.0	62.0	100.0	100.0	100.0	100.0

Source: Rivka Nachoma, research associate.

For US equipment-users, an ever-growing choice: above, Motorola's Dyna portable cellular radio telephone.

US Central Office Sales and Market Share

• Figures by supplier with sales in $m; lines and trunks in thousands

Company	1984 CO sales $	Local lines installed	Local market share %	Toll trunks installed	Toll market share %
AT & T	2,413	3,185	45.8	706	47.4
Northern Telecom	1,135	1,909	27.4	514	34.5
GTE	791	1,525	21.9	227	15.2
Plessey	95	195	2.8	19	1.3
ITT	50	90	1.3	19	1.3
NEC	20	40	0.6	5	0.3
CIT	5	12	0.2	0	0.0
Other	0	0	0.0	0	0.0
Total	4,509	6,956	100.0	1,490	100.0

Note: There is a time lag between when a sale is recognised and when a system is installed; consequently sales and installation market sales are not directly comparable.

Whirlwind of change

Continued from Page 1

over ITT's exchange manufacturing division. The link up will create the second largest equipment supplier of its kind in the world.

Although many analysts claim that it will be very difficult to make this merger work, it has been enough to stir up the rest of the industry.

Siemens of West Germany, faced with a French group which will have more than 30 per cent of the West German market through the ITT link, has quickly stepped in to stake its claim to a chunk of the French market through a take-over of CGCT, which supplies about 16 per cent of the French public exchange market.

The Siemens bid would have been all very well if AT&T of the US had not made a previous offer and come close to clinching it with the approval of the French Government, the ultimate owner of CGCT and Alcatel.

But now the fate of CGCT, a company which has rarely made a profit for several years, and whose main virtue lies in its potential to give manufacturers additional volume and geographical reach in a tight marketplace, has dragged in Governments as well.

Behind Siemens, the West German Government has been lobbying heavily in France, while the US administration has weighed in on the part of AT&T, going so far as to threaten a ban on Siemens sales of telephone exchange equipment in the US if the West German manufacturer is allowed to win the bid for CGCT.

This outburst of trade friction, in which the US authorities angrily attacked Europe for alleged protectionism, demonstrates the exceptional importance which Governments attach to their telecommunications companies. The big groups in the industry continue to be seen as technology leaders and national champions in a growth sector.

It is natural, therefore, that governments, including even those that have liberalised their domestic markets, should intervene and try to help out on behalf of their country's flagship. It is even more to be expected in an industry in which regulation is totally ingrained.

But it will not help the overall health of the sector at a time when the need to rationalise capacity suggests that goverments shoud be turning their attention to the creation of a new order, rather abusive skirmishes around the body of a disintegrating corporation.

World sales of public switching equipment

• Sales by leading manufacturers in £m

Company	Sales of all public switching equipment 1985* £m
AT & T	1,350
Northern Telecom	1,000
NEC-Fujitsu-Hit.	1,000
Siemens	950
ITT	850
Ericsson	750
Alcatel-Thomson	700
GTE	350
Plessey	260
GEC	260
Italtel	180
Philips	130†
Stromberg-Carl.	70‡
Others	120
Total	7,970

* Or latest year available. † AT & T product. ‡ Plessey subsidiary, but selling a range of public switching equipment specifically for US market.

Source: Monopolies and Mergers Commission report.

West European Scene

Old patchwork begins to come apart

THE THREADS which have kept Western Europe's patchwork of telecommunications markets and industries tightly stitched in place for the best part of a century are starting to unravel. But exactly what now pattern will emarge is still far from clear.

State-controlled monopolies, which have long dominated telecommunications in most European countrios, are undor growing pressure to adapt to competition and changing market needs. Since Britain liberalised its market in 1981, Franco, the Netherlands and West Germany have all launched reviews of their national policies.

Simultaneously, Europe's overcrowded equipment industry faces huge challanges, too. Squeozed by protected national markets, tougher international competition and rising costs, the industry appears ripe for rationalisation.

A dramatic step was taken in this direction oarlier this year when CGE of France and ITT of the US agreed to morgo thoir equipment businesses in a joint venture which would create tho world's second-largest manufacturer, with operations in a dozen countries.

These developments are the product of a diverse array of pressures for change which have built up more or less simultaneously over the past few years The main ones include:

- Technological convergence, which is rapidly eroding traditional boundaries both between telecommunications and computing and with other industries such as financial services and retailing.
- International competition in equipment and services, fuelled by US doregulation and the break-up of American Telephone and Telegraph.
- Mounting demands for wider choica and more economic tariffs, particularly from large business telecommunications users.
- Political pressures within many countries for changes in the rola and style of operation of national telecommunications administrations (PTTs).
- Tha urgent need of manufacturers, particularly of public exchanges, which are increasingly captives of their protected home markets, to expand so as to acquire the economies of scale necessary to finance soaring development costs.

Though many of these pressures are common to all European countries there is a considerable divergence of response. Different countries are moving at varying speeds and adopting different solutions, making it hard to detect a clear overall direction for tho future.

The confusion stems partly from the fact that European countries in redefining their telecommunications policies, are seeking tn pursue two separate goals. They want to stimulato more vigorous and innovative markets for telecommunications equipment and services while also building up internationally more competitive anpplier indnstries. But these objectives are not proving easy to reconcilo.

Governments in many countries have come to recognise that tho traditional monopoly system, which has treated telecommunications as a sedate supply-driven utility, is no longer appropriate to any industry which is hoing drastically reabaped by rapidly changing technology and falling costs.

Hence many PTTs are undar pressure both to make their own operations more efficient and to allow new competitors into the market. Several countries have already taken steps to liberalise the supply of customer equipmant and valuo added network services, though only the UK has so far permitted competition in the public telephone network in the form of Mercury Communications, a subsidiary of Cable and Wireless.

The urge to liberalise is tempered by caution, however. No country wants to throw open its market simply to bave it overrun by foreign competitors. Behind much of the recent policy debate appears to lie a desire by governments to stimulate just enough competition to keep the PTTs (posts, telegraphs and telecommunications) on their mettle bnt not so much as to jeopardise their commercial position.

Lumbering and bureaucratic they appear to their critics, PTTs are also widely acknowledged to possess a vital strategic role in their national high-technology efforts. Their massive financial, technical and commercial resources endow them with powerful potential as defenders of tha national interest both in their home markets and internationally against rivals such es IBM, AT&T and the Bell telephone companies.

Thus, in the UK, the government's actions to curb British Telecom's domestic monopoly have alternated uneasily with a tendancy to view BT as an emerging "flagship" of tha high-technology industrias. Earlier this year, the Government rejected the advice of the Monopolies and Mergers Commission and authorised BT to move into manufacturing by buying control of Mitel, the Canadian PABX maker.

But this move, and BT's decision last year to order public exchanges from Thorn-Ericsson, have aroused considerable controversy. UK manufacturers such as GEC, Plessey and ICL have all protested that BT is using its new-found commercial freedom to increase the pressures on them at home rather than to assist them on international markets.

In France the Direction Générale des Télécommunications (DGT), the national telecommunications monopoly, finds itself at the centre of an even more complex imbroglio. After being used by the former Socialist Government as a milch cow to finance the loss-making equipment industry, the DGT would dearly like more independence to pursue its own business and enforce more competitive procurement policies.

However, the DGT has been out-manoeuvred by CGE, its main traditional supplier, which first engineered a link-up with AT&T and subsequently with ITT. The fear in the DGT is that these agreements, which have still to be approved by the French Government, may severely restrict its future choice of suppliers.

The ramifications of the CGE/ITT affair have, of course, spread far wider than the DGT and have developed into an international political controversy into which the West German, US and Netherlands Governments have all been drawn.

Although CGE has sought to present the ITT deal as a "European" initiative, many other countries are sceptical, viewing it largely as a tactic by the French state-owned group to advance its own interests by gaining control of ITT's large European customer base.

Bonn has reacted by pressing the French Government to sell the nationalised CGCT telecommunications group to Siemens, the West German electronics group, which would thus gain control of CGCT's 16 per cent share of French public exchange orders.

The West German intervention, in turn, has incensed the US Government, which fears that France and West Germany are hatching a cosy bilateral deal to share out each other's markets. The US, backed by the Netherlands Government, has urged France to sell CGCT to AT&T, which has a joint equipment venture with Philips of the Netherlands.

Many observers believe that the resolution of the controversy may prove a watershed for the future of European equipment markets. Views are divided, however, on whether the CGE/ITT deal, if it goes ahead, will advance or retard the process of market opening.

Some critics argue that, having once secured access to ITT's customer base in Europe, CGE would have little incentive to press for lower market barriers. Indeed, the prospect of admitting fresh competition could be extremely unattractive to CGE while it was wrestling with the formidable task of integrating ITT's equipment with its own product range.

The outcome of the CGE/ITT affair is likely to have longer-term implications for the EEC's recent efforts to strengthen Europe's telecommunications industry by stimulating subsidised collaboration between leading manufacturers and the PTTs.

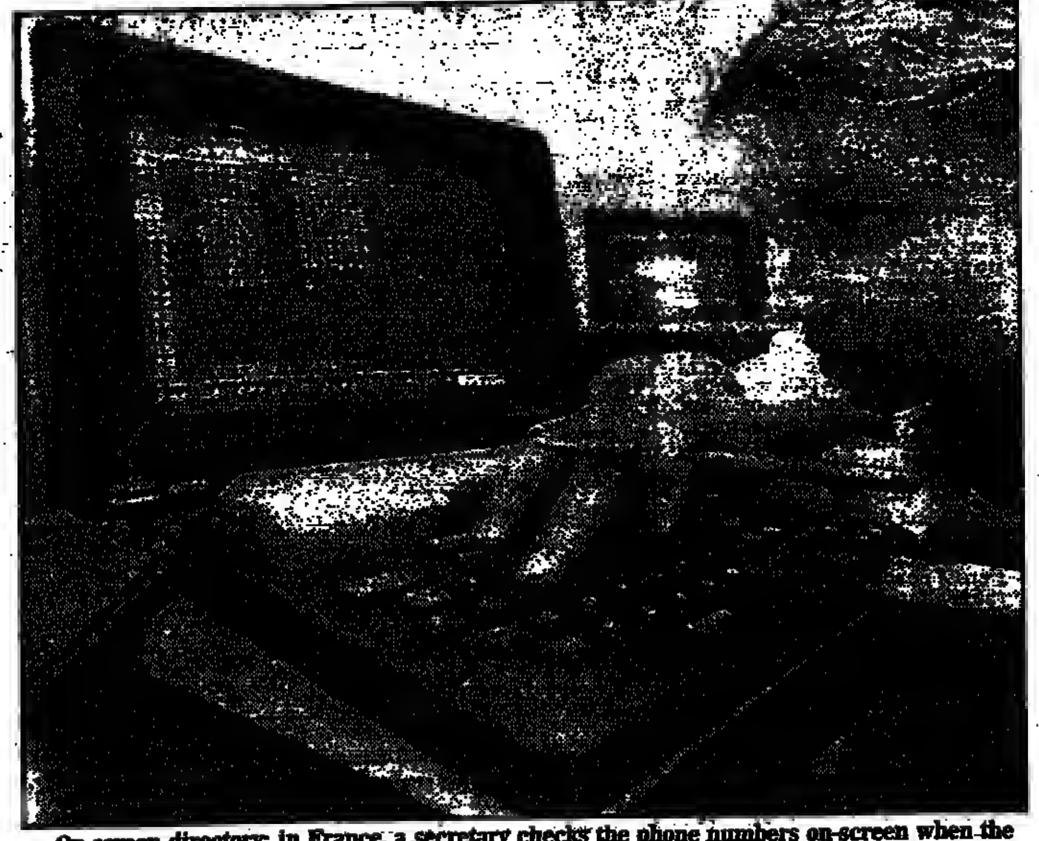
The thrust of the EEC's initiatives lies in promoting common EEC-wide standards and co-operation on the development of advanced systems. The centrepiece is Race, a joint programme intended to lay the basis for wideband telecommunications networks which are expected to enter service in the 1990s.

The programme has been widely applauded by the industry and by EEC governments. But it is at best only a partial solution to the industry's problems since it is not buttressed by any measures to create a more open European market by dismantling the protectionist procurement policies long practised by most European PTTs. Hence, while manufacturers may be in a position to make future products to the same standards, there is no guarantee that they will be entitled to sell them Europe-wide.

The EEC Commission has so far refrained from attacking PTT monopoly practices head-on, apparently because it fears that it lacks the necessary legal and political power and would suffer a bruising rebuff.

By contrast, the US Government has been stepping up the pressure for change. It has already sought in bilateral talks to get West Germany to open up its market and is expected to make an issue of European policies in the forthcoming GATT world trade negotiations. Whether the US offensive will achieve its objectives or, on the contrary, cause European countries to take up the cudgels in defence of the status quo—remains to be seen.

Guy de Jonquieres



On-screen directory: In France, a secretary checks the phone numbers on-screen when the seven-digit numbering system was changed to eight digits to boost the number of possible subscriptions available.

World sales of public switching equipment

- Sales by leading manufacturers in £m

Company	Sales of all public switching equipment 1985* £m
AT & T	1,350†
Northern Telecom	1,000
NEC-Fujitsu-Hit.	1,000
Siemens	950
ITT	850
Ericsson	750
Alcatel-Thomson	700
GTE	350
Plessey	260
GEC	260
Italtel	180
Philips	130†
Stromberg-Carl.	70‡
Others	120
Total	7,970

* Or latest year available. † AT & T product. ‡ Plessey subsidiary, but selling a range of public switching equipment specifically for US market.

Shake-up in US Equipment Market

Manufacturers struggle to adjust

THE SHOCKWAVES of deregulation, the transformation of AT & T's local telephone operations into independent regional companies, continne to shake the $22bn US telecommunications equipment Industry, creeting confusion and volatility for both buyers and sellers.

As the telephone industry struggles to adjust to the new competitive environment, new technology—in the form of an integrated services digital network (ISDN) that promises to transform the largely analog telephone system into a computerised digital network which carries data and video signals along with voice—beralds even more drastic changes ahoad.

In the meantime, suppliers of telephone equipment to businesses face tho problems of a broad slowdown in US capital spending that is holding up purchases of office-type phone exchanges and new offico networks.

This has been a sluggish year for many portions of the US industry with supply exceeding demand in most market segments. Sbipments of private hranch exchanges, tha switching systems installed in corporate offices, are projected to grow by a lacklustre 6 per cent per year nntil 1990, according to Dataquest. Factors Inhihiting growth will include reduced replacement opportunities as older analog systems are displaced and the anticipated growth of alternative Centrex services, offared hy local telephone companies.

Estimated 1986 revenues of $3.3hn will grow at on annnal rate of 7.8 per cent to $4.4bn hy the and of the decade, tho market researchers projact.

In 1985, AT & T held its laad in tha US market with 21.2 per cent market share, while Northern Telecom, its closest rival, sold 18.8 per cent of tha 4.1m lines shipped.

Sales of key telephone systems, whicb typicelly handle ono to 40-phone lines, are in a slump.

"1985 was to the key system industry what the 1930s dopression was to tha US economy," says Dataquest's Will C. Felling, vica president and director of the telecommunicetions gronp.

He projects a growth rate of only 1.5 per cent in line sbipments over the next four years, and a slight drop in revenues of 0.2 per cent per year, bringing 1990 sales down to $2.1hn. He sees bigh-end key telephono systems being supplanted by PBX and Centrex systems, and prices heing brought down by a flood nf Korean imports at the low-end of the market.

Increased residential and small husiness use will fuel growth of smaller key telephone systems, with sales rising from about $550m this year to $602m in 1990, he projects.

Rather than purchese their own switcbing systems, more husinesses will turn to the telephono company for enhanced Centrex services over the next five years, Dataquest predicts. The installed base of "Contrex" systems is expected to grow from a current 6.3m lines to 7.6m by the end of the decade.

Deregulated regional Bell operating companies will make Controx more attractive with new featores snch as call-tracing which give the customor a record of tho phone nnmbers of people who call, plus cnmhinad data and vnice lines, voice messaging and call-forwarding.

Analysts expect the local phono cnmpanios to extend Ceotrex services to small husinesses which cannot afford to buy their own equipment and to price such services aggressively. Centrex services for businesses with 100 phone lines or less may grow by an average 20 per cent over the next four years.

Together with Centrex, some phona companies are planning other value-added services whicb could givo the equipment market a boost. Pacific Bell, for example, is testing a data and telephone communications service which it calls "Victoria" that could become the modal for similar services throughout the US.

Using a "mnltiplexer" that splits a single pbone line into seven cbannels—two for voice and five for dota—Pac Bell aims to offer residential and business customers access to a range of data-retrieval services, including bome banking, community bulletin boards, sbopping and entertainment gnides, news retrieval, energy monogement and electronic mail.

Pac Bell plans to undertake e major trial of the system next year with abont 5,000 paying customers. Before the system enters commercial uso, however, several regulatory burdles must be overcome. Already IBM and Western Union have raised ohjections to Pac Belis' entry into the enhanced data communications field. And tha phone company is awaiting a ruling from tho Federal Communications Commission.

Although the role of the phone companiea moy still be uncertain, tho merger of computer aod telephooe tochnology is already nndor way. Telephone companles throughout the world are working toward the implomontation of an Integrated services data network. Whilo the US is hehind Japan and mnch of Europe, progress has come mnch faster than many in tho telecommunications industry had expected, in part due to the enthnsiasm of equipment manufacturers who see ISDN as e major new opportunity.

ISDN services are now expected to be widely available in the US by the mid-1990s, with pockets of ISDN services emerging as early as 1988 in major metropolitan areas.

Several field trials of ISDN are scheduled to begin next year et regional phona companies and tho world's major eqnlpment manufacturers are vying for contracts to supply prototype eqnipment.

Implementation of ISDN will require a major update of telepbone equipment, both at telephone companies and customers offices. Analoguo telephone-switching equipment will become obsolote and even existing digital switches will need to be adapted to fit ISDN standards.

Tho major impact of ISDN on the telecommunications equipment business will come in tho customor-premises equipment sector, according to Victor Krueger, vice president of Dataqnest, a US market researcb company. ISDN will provide US vendors of terminals, telaphones, PBXs and other offico equipment with an incremental sales increase of $1bn over tho period 1988-1990, solely as a result of ISDN, he calculates.

For central nffice equipmant manufacturers, the hooty shnuld ha worth about $600m over the same period, whila transmission equipment manufacturers can look forward to a $220m opportunity.

Although competitinn is tough and gottlng toughor, tho US telecommnnlcations eqnlpment market will remain tho largest in the world growing tn an estimaled $35bo by 1989.

Louise Kehoe

The UK Equipment Market

Suppliers show variety on offer

A VISITOR to Britain need look no further than its high streets to see that the UK telecommunications equipment market, worth more than £1.7bn last year, has been liberalised. Phone shops and a variety of phones for sale in the high street multiples bear witness to this fact.

Since liberalisation, there has been a flood of equipment trying to get into the British market. So far the approval authorities have given the go-ahead to about 50 new makes of private exchange, about 40 smaller private exchanges known as key systems, about 400 types of telephone and about 20 ranges of cordless phone.

Before liberalisation, by contrast, about 10 manufacturers supplied a limited range of private exchanges to the UK market.

However, the picture in the UK equipment market is more complex than the apparent one of a thousand products blooming, thanks to the delights of unrestrained competition. There are three reasons why the UK market is still not characterised by anything like perfect competition.

First, British Telecom moved rapidly in the run-up to liberalisation to consolidate and even strengthen its position as the dominant supplier of private exchanges.

BT used its dominance in the supply of exchanges below 100 lines to launch a modernisation programme, converting the older electro-mechanical exchanges. So successful was this drive that the market for private exchanges below 100 lines peaked in 1983-84. Prices have fallen and there may now be an over-supply in the market, leading some observers to predict a shake-out.

Moreover, BT moved aggressively into the supply of exchanges with more than 100 lines, a market from which it was previously absent. In the year to March, BT captured more than 60 per cent of this market which has now also peaked, according to MZA, a specialist marketing consultancy.

The second factor slowing up liberalisation is deficiencies in the procedures for approving private exchanges. In particular, the British Approvals Board for Telecommunications has been severely hampered by a lack of enough telecom engineers.

Public switching equipment sales in the UK

£m	1981-82	1982-83	1983-84	1984-85	1985-86
All public switching equipment (including contract development)					
Estimated market size	565	575	555	560	650
of which:					
GEC sales	215	209	173	162	258
Plessey sales*	209	230	195	256	261
Market share of					
GEC	38%	36%	31%	29%	40%
Plessey	37%	40%	35%	46%	40%
Combined	75%	76%	66%	75%	80%
System X (including contract development)					
Total System X turnover	62	71	65	226	463
of which:					
GEC	24	27	28	83	235
Plessey*	26	30	37	143	228
Market share of					
GEC	39%	38%	43%	37%	51%
Plessey	41%	42%	57%	63%	49%
Combined	80%	80%	100%	100%	100%

*Excluding development sales sub-contracted to GEC in 1983-84 to 1985-86.

Source: Monopolies and Mergers Commission report.

As one industry insider puts it: "Liberalisation has to be fuelled by supplies of equipment. Virtually everyone believes that BABT has failed in getting enough equipment through."

The Office of Telecommunications, the industry's regulatory body, says a company might get a new private exchange approved in nine months *if it* made a perfect application and met all the industry standards immediately—but those are two big ifs. One executive with experience of trying to get his equipment approved describes the procedure as a "shambles," though he adds that it has improved.

The third barrier to full competition is the simple fact that some areas of activity remain to be liberalised.

From today, for example, private contractors and do-it-yourself householders are allowed to compete with BT in fitting the sockets needed to install extension phones in private homes. This new piece of liberalisation follows complaints by BT's smaller competitors that its control over sockets gave it an unfair advantage in selling phones.

However, when the decision was announced in September, it was immediately attacked by the Telecommunications Industry Association, a trade association representing the independent sector, for not going far enough. It demanded liberalisation of the master socket too, where BT still retains a monopoly, because it said BT was being too slow in converting old master sockets which are unsuitable for modern telecommunications equipment.

The association predicted there would be a loss of telephone sales of £60m over three years *if BT kept control of the* master socket.

Nevertheless, it remains true that customers can choose from many more products now than they could at the start of the 1980s. More controversial is the question of what impact this greater competition has had on the UK equipment industry.

The optimists say that, deprived of their captive home market, the big UK manufacturers, such as Plessey, General Electric Company, and STC, have had to become more efficient. They have modernised their products, embarked on joint ventures with non-UK equipment manufacturers and put more effort into exports. There is much truth in this optimistic account.

The pessimists, however, argue that Britain has surrendered part of its market to imports, in return for very little from other countries, most of whose markets, particularly in Europe, remain protected. The share of the UK market supplied by imports rose from about 8 per cent in 1981 to about 18 per cent last year, though import penetration remains lower than that for UK manufacturing in general.

There have been areas where the response of the UK manufacturers appears to have been disappointing. One example is cellular radio. Despite the rapid growth of the service in Britain, most of the equipment has been made by foreign companies, though some of this is now being manufactured under licence in Britain.

Ericsson of Sweden and Motorola of the US have supplied the switches. Most of the phones come from companies such as Motorola, NEC and Panasonic of Japan, NovAtel of Canada and Mobira of Finland: the UK cellular phone market was worth almost £50m last year on one estimate.

Government officials involved with the policy on cellular radio say that the price the UK had to pay for getting its service established so quickly was to lose out on the equipment side.

British Telecom has tended to stay with its traditional manufacturers for ordinary telephones, though the share of BT orders going to individual companies has changed. However, most of the new phones on the market which are being supplied by routes other than through BT, such as in the high street multiples, are imported, mainly from the Far East. Some observers believe this is inevitable because competition has driven down prices on what is essentially a low tech product.

A problem still to be resolved is the future of System X, the only digital public switch developed in the UK, which has so far failed to win large orders abroad. BT's programme for installing System X has at last gone into top gear this year: one new exchange is being commissioned each working day on average.

However, observers have long considered it sensible for GEC and Plessey, Britain's two biggest makers of telecommunications equipment, to rationalise and even merge their overlapping interests in System X. The Monopolies and Mergers Commission supported this idea when it blocked GEC's hostile bid for Plessey in August.

Since GEC's bid failed, GEC and Plessey have begun to discuss how they might eliminate duplication of effort on System X in areas like purchasing, marketing and data processing.

David Thomas

Iain Vallance, 43-year-old chief executive of British Telecom—"competition should stimulate the market and us."

British Telecom

Future hangs on politics

THE most important event for British Telecom in the next 18 months will be a political, not a commercial, one: the outcome of the British general election.

A Conservative victory would probably mean the sale of the Government's remaining 49 per cent stake in the company and further liberalisation of the UK telecommunications market.

Labour, however, has promised to take BT back under public ownership and control. It has also talked of bringing Mercury, the sole competitor to BT's main network, under BT's wing.

More uncertain is what a hung Parliament, with no single party in overall control, would mean for BT.

Sir George Jefferson, BT chairman, launched a stinging attack on Labour's public ownership proposals at BT's annual meeting this year, warning against BT becoming "a political football like, for instance, British Steel."

Perhaps more surprisingly, there is no great enthusiasm at senior levels in BT for an end to competition and a return of its monopoly.

"If we have fair and reasonable competition, we expect less regulation," explains Mr Iain Vallance, BT's chief executive.

"Competition should stimulate the market as a whole. It should stimulate us. And it should stimulate the industry that supplies us," he adds.

More competition in the UK telecommunications market has given BT greater leverage over three crucial areas:

- **Its unions.** BT's defeat of the industrial action by the National Communications Union, the largest in BT, taken in 1983 over denationalisation and liberalisation is widely regarded as a turning point in the industrial relations history of the industry.

Since then, BT has taken the initiative in industrial relations, driving ahead with plans for more efficient working practices. The presence of a competitor eager to grab BT's business if it were disrupted by industrial action is a potent threat to hold over the unions.

"Before 1981, the unions held undue sway and almost the power of veto over what BT management did. With competition that power is weakened," Mr Vallance argues.

- **BT management.** Competition has also helped BT to overhaul its own management, installing a more commercial approach to its business. Financial and marketing executives have been brought in from outside the company.

Mr Vallance says he is satisfied that the top layer, the most senior 400 executives, now have the right commercial approach, though he acknowledges that further down the line attitudes are still "patchy."

- **Suppliers.** Competition, forcing BT to cut costs, has prompted it to take a harder line with its suppliers, which in the past tended to be a small and rather cosy club of UK manufacturers.

BT has introduced a second public digital switch, Thorn-Ericsson's System Y, to compete with the System X switch of Plessey and the General Electric Company. BT's programme of installing System X, once 15 months behind target, has now speeded up: one exchange is commissioned each working day on average.

While benefiting from competition, BT has at the same time reacted aggressively to it. It has grabbed a dominant market share in the supply of some equipment, such as the largest private exchanges, which it had previously ignored.

For some years, BT has also been "rebalancing" its tariffs, by raising local charges and rentals, but cutting long distance rates, where BT was most vulnerable to competition from Mercury.

Its latest package of price changes this year, which ranged from an 18.9 per cent rise on local calls at peak times to a 17 per cent cut in some long-distance charges, forced Mercury to announce an immediate 12 per cent cut in its charges for calls over 35 miles.

It is crucial for BT to protect its traditional core business, that of the public telephone service, since UK calls and rentals last year accounted for 55 per cent of its £8.4bn turnover. However, BT recognises that defence of its core is not enough.

"Although it's good to have a growing utility business, as competition increases and costs come down margins will decline," says Mr Vallance.

So BT has been working on other areas where it can either expand or move into afresh. One obvious target is value added services for businesses, where BT has launched a number of initiatives. For example, in September it announced a business information service, Hotline, aimed at financial analysts, marketing specialists, and small businesses. In October, it said it was entering the market of managing other companies' communications networks.

However, the growth of the UK value added services market has not been as rapid as some people had predicted. Last year, BT's combined revenue from value added services, private leased circuits, telex, radiopaging and similar activities was £844m.

Other areas of opportunity for BT include its international operations and joint ventures with other telecom companies, including equipment makers. Mr Vallance says BT is pursuing a twin-tracked strategy to the increasing liberalisation of the flow of telecommunications traffic between countries: defensive, to hold onto the business that BT has already; and offensive, to exploit new opportunities which are opening up.

However, BT has been relatively cautious in arranging joint ventures or making acquisitions, particularly on the manufacturing side.

"You can see some of the problems which AT&T have run into by doing some things too fast," Mr Vallance says.

BT's main initiatives so far have been acquiring Dialcom, the US electronic mail company; taking a 51 per cent stake in Mitel, the loss-making Canadian private exchange maker; and entering a joint venture with Du Pont of the US to make advanced opto-electronic components.

BT explains these either in terms of their strong fit with aspects of BT's existing business (Dialcom) or in terms of needing to keep closely in touch with key technologies and products on the equipment side (Mitel and Du Pont). The Mitel and Du Pont initiatives have the added attraction of increasing BT's presence in and knowledge of the key US market.

Mr Vallance says that several more pieces may need to be added before the jigsaw is complete, but these are likely to be joint ventures or start-ups as acquisitions.

"The acquisition route is one you have to use prudently, because generally acquisitions fail to meet expectations," he argues.

BT's path since privatisation has not been entirely trouble-free. There are still plenty of grumbles from customers about quality of service. In October, Professor Bryan Carsberg, director general of the Office of Telecommunications, the industry's regulatory body, warned that the formula governing BT's prices might have to be strengthened if its public commitment to quality of service did not improve.

The telecom unions have also recently published a report, hotly disputed by BT, which argues that privatisation has meant dearer phone calls for the domestic subscriber; new charges for a variety of engineering services; an abandonment of BT's buy British policy; cuts in BT's research and development; lower standards of service; and worse conditions for BT workers.

However, among business customers, who have been the target of the competition between BT and Mercury, there is a feeling that BT's performance has certainly improved, even if there is some way to go before its act is fully together.

David Thomas

Mercury Communications

UK's second national network

HISTORIANS LOOKING back at the development of UK telecommunications are certain to pick out May 1986 as a key date. That was when Mercury, which was previously offering private leased circnits to companles, launched its puhlic telephone service.

Future assessments of the UK's innovative attempt to liberalise its telecommunications market will turn in large measure on whether Mercury, the nnly carrier licensed to provide an alternative to British Telecom's main network, succeeds in estahlishing itself as a viahle alternative to BT.

Mr Gordon Owen, Mercury's managing director, has set an end-of-the-decade target of winning 5 per cent of the UK telecommnnications market, which is likely to be ovar £10bn by then. He envisages a 10 per cent share within 10 years, which could turn Mercury into the dominant company within its parent, Cable and Wireless, the UK international telecommunications group.

After May, Mercury's initial concentration was on winning long-distance traffic from companies making hig use of tha phone network. It says many of its customers were in the City, where there was en explosive growth in demand for communications in the run-up to Big Bang. Mercury has installed a fibre optic grid in ducts under the City owned by London Hydraulic Power, a company formed in 1871, which it hought in 1985.

Mercury believes it has three main advantages over BT:

• **Price:** When Mercury launched its services in May, it claimed its long distance calls were up to 24 per cent cheaper than BT's. Mr Owen says that this price advantage is crucial in persuading customers to switch some of their traffic to Mercury in the first place, though after that other factors, like quality of service, are more likely to determine whether customers extend their use of Mercury.

This initial sensitivity to price explains why last month Mercury cut its charges for trunk calls of more then 35 miles by 12 per cent, within days of British Telecom's package of price cuts on its long-distance routes being approved by the Office of Telecommunications, the industry's regulatory body.

• **Quality:** Since Mercury is a new start-up, it has been ehte to instal modern digital equipment from scratch, which allows not just better qnality, hut also new servicas such as hills giving precise details of ell calls made.

By contrast, even though BT has recently quickened the pace of its programma for installing digital exchanges, it still doas not hope to have half its network served by digital exchanges nntil the and of tha decade.

• **Diversification:** Many companies seem to be transferring some business to Mercury as an insurance policy against major breakdowns in BT's service. This is particularly true in tha City, where a breakdown in telecommunications services would he disastrous.

Mercury had invested £130m in its challenge to BT by the end of the last financial year. It expects the figure to have risen to £200m by the end of this financial year.

Gordon Owen, chief executive of Mercury Communicatons: price advantage is crucial in winning customers.

By the May launch, it had completed its basic fibre optic network, linking London, Birmingham, Leeds, Manchester and Bristol. It is extending the network north from Manchester to Glasgow, across to Edinburgh, and back south via Newcastle to Leeds. Links to Aberdeen, Cardiff and the south coast of England are also planned.

Mercury is at present offering two main types of service: its 2100 service, where customers are directly connected to Mercury's network; and its 2200 service, where customers are indirectly linked to Mercury through interconnection with BT.

The 2100 service has higher installation charges, but cheaper tariffs, than the 2200 service. It is therefore more suitable for larger customers—those with more than 30 lines outside the City of London. In the City, because of its fibre optic network, Mercury reckons its 2100 service is suitable for businesses with as few as 10 outside lines.

Mercury has completed a number of steps so far in its evolution towards a full alternative network: from May, it was offering long-distance traffic on its directly connected 2100 service; from August, it offered local calls in London; and in September, it began signing up customers wanting to use its indirectly connected 2200 service.

Before Christmas, Mercury hopes to have won its first residential customers. It is aiming its drive into the residential sector at three groups initially: the staff of its existing business customers; Cable and Wireless shareholders; and its own staff.

Mercury says residential customers will have to be fairly heavy phone users (spending about £80-£100 a quarter) to save money with it. They will also need to live within about 25 miles of Mercury's trunk network.

Other plans being considered by Mercury, though without any precise timing yet, are to offer local calls to customers outside London and to set up call boxes to compete with BT's.

It is still too early to reach a judgment on how well Mercury is doing. A few companies have transferred custom to Mercury in a big way. One such is Boots, which says that more than £250,000 a year in long-distance business will now go to Mercury, with less than £50,000 going to BT.

However, most of Mercury's customers are probably trying out its services in a fairly limited way before deciding whether to give it more of their business.

BT thinks that Mercury's immediate tariff cuts in response to its latest price changes might indicate that business is not flowing Mercury's way as fast as it had hoped.

"Our tariff changes were interrogative. We set them at a level that if Mercury had been doing extremely well, it would not have had to respond," says Mr Iain Vallance, BT's chief executive.

However, Mercury says that its main problem at the moment is managing the speed of its growth. Its workforce, now standing at over 1,200, has increased by a half since March. Indeed, it has missed some installation dates, which it blames on its suppliers.

In the medium term, Mercury like BT will have to face major decisions in the political arena, whichever party wins the next election.

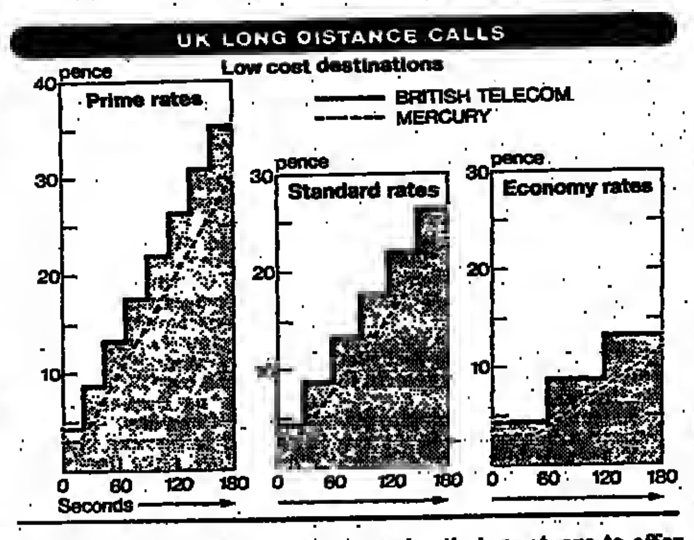
Sir Eric Sharp, chairman of Cable and Wireless, has attacked Labour's proposal to integrate Mercury into BT, thus restoring BT's monopoly, as "a doctrinaire political gesture" which could cost a Labour administration more than £1bn.

If Labour wins the next election, Mercury's best defence against such a move will be a large number of customers who would feel annoyed at losing its service: hence the key importance to Mercury of spreading its customer base outside large companies, which were its natural initial target.

However, by November 1989 Mercury will have to face a major political decision even if the Conservatives return to power or there is a hung Parliament. For that is the date when the Government's commitment not to licence any other public telecommunication operator runs out.

David Thomas

Mercury is starting to challenge BT for some of its most profitable business: Above, a BT rigger at work on the 300ft London Telecom Tower.



Dutch Joint Ventures

Eyeing the French market, too

FRENCH DALLIANCE over access to its chauvinistically guarded telecommunications market has managed to rile a host of countries in North America and Western Europe, not the least of which is the Netherlands. But American Telephone & Telegraph-Philips (APT), the US-Dutch telephony joint venture, remains confident of getting the plum 16 per cent slice of the French market after nearly two years of Parisian coquetting.

Selling public telephone-switching systems in France, however, could be somewhat of a pyrrhic victory for the joint venture between AT & T, the US telecommunications giant, and Philips, the Dutch electronics leader. The huge new investments required would mean higher debt and probably would delay APT's move into the black until 1989 or 1990, Mr Karel Hubee, executive vice-president of APT, explained during a recent interview.

APT is hoping to buy the public-switching business of Compagnie Generale de Constructions Telephoniques (CGCT) but in exchange has had to promise to set up big operations in France to become the second supplier to the French PTT.

The US-Dutch joint venture, based in Hilversum, the Netherlands, was established in the middle of 1983 and has yet to post a profit although none was expected before 1987. Higher-than-expected start-up costs, however, will push back the break-even point to at least 1988 and later if the French deal goes through.

Mr Hubee predicts that losses for 1986 will narrow from 1985's Fl 92m and that sales will surpass the Fl 681m of last year. The company has failed to meet its goal of Fl 1bn a year in turnover which it had hoped to reach in 1985.

Nevertheless AT & T and Philips are willing to help cover the "hundreds of millions of French francs" necessary to operate in France, Mr Hubee said, because that is part of the price for survival in the cut-throat competition of the telecommunications industry.

"If you want to be one of the five or six players left in the year 2000 . . . you must participate in the battle," he explained in his brightly lit office overlooking Hilversum, the broadcasting capital of the Netherlands.

Mr Hubee admitted that the American-Dutch venture was offering a hefty premium for the loss-making CGCT, perhaps twice its value, in exchange for a lucrative market worth between FFr 700m and FFr 800m a year. APT has agreed to pay FFr 117m for the public telephone-exchange operations of CGCT, which lost a total of FFr 250m last year and is in the process of being privatised.

To try to clinch the deal APT has agreed to produce the 5ESS/PRX digital telephone-exchange system in France, which will require as much money as CGCT itself. On top of that, AT & T has promised to buy $200m worth of microwave equipment from a joint venture to consist of APT and Compagnie Generale D'Electricite (CGE) and to be based in France.

French officials already initialled a contract with APT nearly a year ago but since have balked, figuring they might be able to get a better deal elsewhere. Rival European telecommunications companies were allowed to make offers and a handful did—some invited and others voluntarily. Siemens of West Germany, L. M. Ericsson of Sweden, Northern Telecomm of Canada, Italtel of Italy and Plessey of the UK are believed to have made bids.

But the plot thickened when Bonn began pressuring Paris to sell CGCT's public-switch activities to Siemens because CGE was getting Standard Elektrik Lorenz (SEL) of West Germany as part of a new consortium being set up by CGE and International Telephone-Telegraph (ITT) of the US. SEL is one of ITT's subsidiaries worldwide that are being brought into the consortium with CGE, which is owned by the French Government.

Washington then joined the fray, arguing that France should choose APT on commercial grounds and not Siemens on political grounds. Mr Ruud Lubbers, the Dutch Prime Minister, seconded the argument.

With the commercial and political stakes rising almost daily, what will APT do if the French deal falls through?

"We will clearly be disappointed because it will be a lot of money and effort lost," Mr Hubee admits. "But we have two legs to stand on—transmission and switching. For switching it will be a tremendous drawback but we will get other activities going. We'll get a foot in switching in other countries."

On home territory, more orders can be expected in coming years from the Dutch PTT, which is modernising tha entire infrastructure at a cost of Fl 7bn over 20 years. APT alreedy has snagged an initial contract worth Fl 1bn for five digital switching systems and lines hnt mnst vie in fnture with Ericsson and ITT, which also have been promised business by the Dutch PTT.

Britain, West Germany and Italy look less than promising st the moment although Belgium is expected to place new orders for telephone exchanges next year. One of the hrightest spots is likaly to be Asia, where Indonesie is planning to install digital telephone switches in the near future, and China is involved in a major modernisation of its entire telecommunicetions network.

Philips is involved not only in puhlic telephone hut also in the private telecommunications market through its telecommunications and data systems division. The Dutch company's premier product is its "sophomation" line of integrated office-automation systems that link computers, telephonas and other peripheral equipment to allow the exchange of text, deta, voice and image informetion.

The Sopho-S System can link as few as 20 connections, as many as 20,000 in a network that includes a digital private antomated business exchange (PABX). In October a "Voice Mall Server" was introduced that serves as a sophisticated telephone-answering machine relaying messages only through use of e password for security and sorting messages by priority.

Sopho-Net is a wide-area network that ellows a glohal exchange of data and text, fur example, in hanks' international fnreign-exchange dealing nperetinns. In the US, Philips has linked up with Harris Corporation to market Sopho-Net there and in Japan, the Dutch company has joined with Kyocera.

In comiog years Philips plans to wesve into the sophomation technology optical memory equipment such as compact disc-read only memory, laservision and digital optical recording.

The Dutch market for value-added networks (VAN's) such as sophomation will win s hig boost in two years when the PTT telecommunications authority is spun off into a privste company and competition is opened to private industry. All the shares of the "NV PTT" will remain in the state's hands hut its monopoly on peripheral equipment will be broken and only the monopoly on tha infrastructure will remain.

When the "NV PTT" begins in January 1989 one of the most promising markets for the communications industry is bound to be thot for PABX's. Extremely high prices for PABX's in the Netherlands, due to only two soppliers, hsve kept the market lagging far hehind most of Western Europe. Pent-up demand coold hurst forth if new competition lowers prices.

Since the Dutch centre-right government finally approved the PTT spinoff early this year, however, progress has heen slow in deciding exactly where the dividing line will be hetween the monopoly and free market. At one point it was thought that all analogue peripheral equipment would he considered infrastucture and therefore under the NV PTT's monopoly while all digital equipment would he opened to competition. A clear decision has yet to emerge.

But decisions are urgently needed over the NV PTT's functioos so that it and soon-to-he competitors can plan new tariff structures. For example, Amsterdam's planned teleport, the high-technology telecommunications and data processing centre, has been thrown into turmoil for lack of information on tariffs from the PTT.

Informetion-technology companies that will be providing the hardware and software for so-called "smart buildings" and video conferencing, amnng other facilities, must know what they will be charged by the PTT.

If the PTT fails to set tariffs for the planned teleport sono some critics speculate that the huge, Fl 3hn project would be jeoosrdised.

Laura Raun

France

Battle on with US and German interests

THE FRENCH telecommunications industry is at the centre of an international battle whose outcome is likely to have major repercussions for world telecommunications as a whole.

Moreover, this battle which essentially involves the opening of 16 per cent of the French public telephone switch market to an international manufacturer to compete against France's Alcatel group controlled by the nationalised Compagnie Générale d'Eléctricité (CGE) is only one if dominant aspect of the dramatic times the world of French telecommunications is now living.

The battle involves the future of Compagnie Générala de Constructions Téléphoniques (CGCT), Fraoce's oldest but tronbled telecommunications equipment manufacturer formerly owned by ITT of the US before its nationalisation by the Socialists in 1982.

The new conservative government is now privatising CGCT and reviewing hids for control of the group by international companies such as AT&T, Siemens and Ericsson.

These companies, hacked by their respective governments—the US and German administrationa have been lobbying the Paris anthorities fiercely—are all seeking to gain control of the tronbled French group because it will give them a 16 per cent foothold on the French public telaphone exchange market and make them the second supplier to the Direction Générale des Télécommunications (DGT), the telecommunications authority.

Two years ago it would have seemed inconceivable to think that the French administration would open up this key domestic market to a major international foreign group. But the restructuring of the French telecommunications industry under the former Socialist administration opened the way for the entry of a foreign supplier.

The merger of the telecommunications assets of CGE and Thomson, the other major nationalised electronics group, removed one of the DGT's two French suppliers since Thomson was not only a second source of CGE's Alcatel subsidiary hut also provided the licence for the equipment built hy CGCT.

The stakes in the CGCT contest are extremely high for all parties concerned. Moreover, the battle for this 16 per cent share of the domestic public telecommunications market coincides and indeed is intrinsically linked with another major telecommunications deal involving CGE and ITT.

The French gronp, which hopes to be privatised in the second half of next year, is currently completing the setting np of a joint venture with ITT which will create the second largest telecommunications grouping in the world after AT&T.

The new joint venture will be controlled by CGE and will group together ITT's telecommunications assets with those of CGE's Alcatel subsidiary. Moreover, CGE and ITT recently decided to extend the deal to include the two group's respective cable and optical fibre operations.

For CGE, the venture is seen as a way of keeping the French group in the top world telecommunications leagne and ensuring its future in this business. But the deal has also provoked a reaction in West Germany which has hacked Siemens hid for CGCT arguing this would reciprocate CGE'a major foothold in West Germany through ITT's German subsidiary SEL.

In turn, this has provoked a reaction from the American side which has been lobbying in favour of AT&T taking over CGCT for the past two years. The Americans have suggested that they could make life difficult or easy for Siemens on the US market depending on tha ootcome of the CGCT affair.

A final decision on CGCT is now expected to be taken by the French Government around Christmas, although many observers doubt whether this timetable will be kept. They fear tha decision will again be delayed into tha new year. The problem for the French administration is a major one. It is not so much the technical or economic aspects of the CGCT deal which worry tha Government, but tha political repercussions.

"It's a difficult dilemma for the Government. Whatever their decision it is bound to disappoint and anger someone and leave a sour taste behind," remarked the head of a major French industrial group recently.

If tha attention of the French telecommunications industry has been focused on the two big "affairs," as the French call them, concerning CGCT and the CGE-ITT joint venture, it has also been increasingly turning to a series of other evolntions taking place in this key French sector.

If industrial restructuring, globalisation of markets, the gradual breakdown of barriers even in the highly protected telecommunications environment has led to the current manoeuvres around CGCT and CGE-ITT, the arrival of the new right-wing government has also accelerated the drive towards gradual deregulation in the French telecommunications sector.

Indeed, both Mr Alain Madelin, the Industry Minister, and Mr Gerard Longuet, the post and telecommunications minister, are among the most ardent disciples of the new wave of French liberalism and free market policies.

Mr Longuet has already announced plans to open up to private competition the market for advanced valne sdded telecommunications services in France ranging from videotex to videophones and private husiness communications natworks.

Already, important associations between major international groups have been made to gain a share of this new deregulated market in France. IBM and the Paribas banking group have linked-up to offer such new services while Olivetti and the French Suez financial group have also teamed together for the same purpose.

However, the government despite its free market high rhetoric is adopting a cautious and gradual approach to deregulation.

Although the movement towards deregulation in the longer term appears inevitable—the opening up of the domestic public switch market through CGCT to a foreign supplier is an eloquent sign of how things are changing and moving in France.

The Government is none the less concerned to set up a structure to regulate competition in the French telecommunications sector before eventually opening up the existing state monopoly to outside carriers as the US and the UK have done.

This is likely to take some time and may not occur before the presidential elections due in 1988.

But the Government has now set in place a new regulatory body to act as an independent watchdog agency for broadcasting and telecommunications modelled somewhat on the US Federal Communications Commission (FCC). This new Commission called Commission Nationale des Communications et Libertés (CNCL) has just chosen its 13 representatives or "sages."

Its task will be complex and delicate, for together with telephone deregulation the Chirac Government has launched an ambitious programme to accelerate broadcasting deregulation in France including the privatisation of France's oldest and largest state television network, TF-1.

David Marsh

In West Germany, telecommunication dish aerials at a satellite tracking station overlook a church and cattle at a quiet Bavarian village. The tracking station was involved in monitoring signals from Spacelab 0-1, the first satellite mission paid for and managed by West Germany, for relay to the control centre at Oberpfaffenhofen. The German telecommunications industry has recently become the centre of much political argument. Equipment producers, too, are under pressure with foreign competitors pressing for a way into the German market.

West Germany

Rivalry with US over CGCT

THE LATE 20th century has caught up with West Germany's once-comfortable telecommunications industry with a vengeance. New technologies have opened up new opportunities and now Bonn squares up to Washington in a dispute over who should buy something in Paris.

Some of the country's grand old industrial giants, friends for decades, start to claw at each other. An imperial monopoly, the Bundespost, begins to disintegrate. Even the customer — probably more ignored in West Germany than in other developed capitalist economy—knows that "something is up."

The race between Siemens and American Telephone & Telegraph (AT&T) to take over French telephona company CGCT has thrust Bonn at an industry in which it has never taken much interest. Most West German governments have simply delegated communication, and the politics that surround it, to the Bundespost and whoever happens to be Posts Minister.

But with the US Government now actively pressing AT&T's case in France, and Bonn doing the same for Siemens the new politicisation of the industry is scaling heights undreamed. Mr Christian Schwarz-Schilling, tha present and rather colourful Posts Minister, has become just one of many players in Bonn as the Economics Ministry, the Foreign Ministry and even Chancellor Helmut Kohl is drawn into CGCT's future.

Mr Schwarz-Schilling won his joh because he was, really, the only member of Mr Kohl's party to show much interest in the new media when he was in opposition. Today, the hand of politicians familiar with broad bands, coaxial cables and digital public telephone switching is growing rapidly.

The fight to buy CGCT will contribute to this but it has been Mr Schwarz-Schilling, not always by virtue of his successes, who has drawn attention to the Bundespost and its monopoly over almost every conceivable form of electronic communication.

There was the time, about two years ago, when he proudly announced the arrival on the market of West Germany's first cordless telephones — late, he regretted, because he and his Ministry had been determined to get the technology absolutely right.

Within days, conversations on these telephones were being picked up on transistor radios all over the country and the Minister had to do some rapid explaining.

But his most eye-catching ploy has been to spend roughly DM 3bn a year wiring up the country for cable television. No-one, or hardy anyone, watches cable here not least because Mr Schwarz-Schilling is constantly having to revise cable connection charges upwards to pay for the cable programme.

What he has done, though, is to provide a network, or the beginnings of one, which if not used by new television companies is beginning to excite great activity among producers of telecommunications equipment.

At the same time, a commission has been hard at work on ways to part the Bundespost from its overall monopoly and is likely to suggest next year that Mr Schwarz-Schilling's jurisdiction stops at the entrance to buildings that do not belong to him—meaning that all telephones, computers, modems, teletext receivers, facsimile machines could be bought and installed without reference to the Bundespost.

It may not get quite that far—Germany does not have a good record in deregulation—but the effect on equipment producers has been dramatic.

US producers, aware that now is the time to push Bonn on deregulation, have been doing so through their Government for nearly two years and have won at least some promises from the Bundespost on deregulation.

In Germany itself the producers are in a state of gentle turmoil. AEG now belongs to Daimler Benz, which is likely to embolden it after its financial troubles earlier in the decade.

Bosch, alarmed at one of its biggest electronic car component customers, Daimler, buying an electronics company (AEG) is trying to develop its telecoms side and tried to buy, so it is rumoured, ITT's West German subsidiary, SEL.

But SEL is being sold to CGE of France. Both Bosch and the computer producer Nixdorf have been approached to join in the ITT/CGE venture but have refused, saying the offered stake was too small.

Nixdorf though, has begun to rattle Siemens with its own telecoms products, notably PABX systems already designed to convert to full digital switching as it is introduced by the Bundespost over the next 10 years.

Siemens, struggling to find growth markets but having trouble winning switching equipment orders in the US and being frustrated in France, is now promising to start making electronic fuel injection systems in competition with Bosch.

This merry-go-round is a long way from slowing down. On the corporate side, acquisitions and mergers are likely but the noise already generated has stirred the country's strict cartel authorities and it is going to be difficult for German producers to survive and grow merely by buying market share. That means they will have to innovate faster than the foreign competition that is pressing for a way into the German market, or innovate slowly and be protected.

The latter is becoming an increasingly dubious option. Pressure in the US Congress to retaliate against telecoms protectionism in Europe is growing and many major West German telecoms companies admit that they stand little chance of surviving as independent entities unless they have access to the American market.

Peter Bruce

Italy

Big merger planned

WHILE THE headline-grabbing developments in Europe's changing telecommunications industry have been elsewhere this year, the Italians have heen quietly layiog the foundation for a major rationalisation of their own fragmented indnstry. The plan calls for an unusual merger of Italtel, tha state-owned telecommunications equipment maker, and Telettra, the smaller telecommunications company which is owned by the Fiat gronp.

The marger in many ways makes sense: it would put Italtel, which is owned by tha IRI-Stet state holding group, nnder the same roof as Telettra. Italtel'a turnover last year was L1,228bn, while Telettra'a was L497hn. Tha two companies, Italy's only home-grown telecommunications equipment mannfacturers of aerions scale, could well complement each other's activities.

Testing an Italtel digital exchange

Italtel draws much of its turnover from switching, whila Telettra is one of Europe's leading producers of digital transmission equipment. Italtel derives more than half of its turnover from SIP, the state telephone company, and exports amount to only 7 per cent of total revenues.

Telettra, on the other hand, is better structured for competition in the European market, and derives roughly half of its turnover from exports.

Both Italtel and Telettra are profitable, the former having emerged recently from years of losses under the leadership of *Mrs Marisa Bellisario*, who cut Italtel's staff by 10,000 between 1981 and last year. Last year Italtel mada a L42.1hn profit, while Telettra earned L20hn.

The merger would be designed to co-ordinate marketing, research and development, and production between the two companies and would also represent an attempt to create a unit large enough to advance Italian interests on the competitive glohal telecommunications market.

For most of this year a feasihility study has been underway to evaluate the prospects for a full or partial merger. A company called Telit has been snpervising the study. Telit is 48 per cent owned hy IRI-Stet, 48 per cent hy Fiat and 4 per cent by Mediohanca. This could also become the shareholding structure of the merged group.

The feasibility study, backed by valuations of the two companies heing prepared by accountants Arthur Andersen and Price Waterhouse, should be completed by the end of this month.

It is already becoming clear, however, that at the centre of the negotiations, aside from indnstrial and commercial considerations, will be the issue of how moch Fiat might be *expected to contrihute to the* venture. This is because the evalnation are expected to show a suhstantial difference between the net valne of Italtel and Telettra.

Italtel and Telettra already collaborate in one area, the building of digital exchanges. In 1982 a three-way accord was reached among Italtel, America's GTE and Telattra to develop new prodncts. The result has been the Linea UT switchboard exchange (developed by Italtel) and the GTD-5 (developed by GTE).

Linea UT sales represent around one-sixth of Italtel group turnover and at the end of this past summer over 220 Linea UT switches (representing 450,000 lines) were in operatioo in the Italian telephone network.

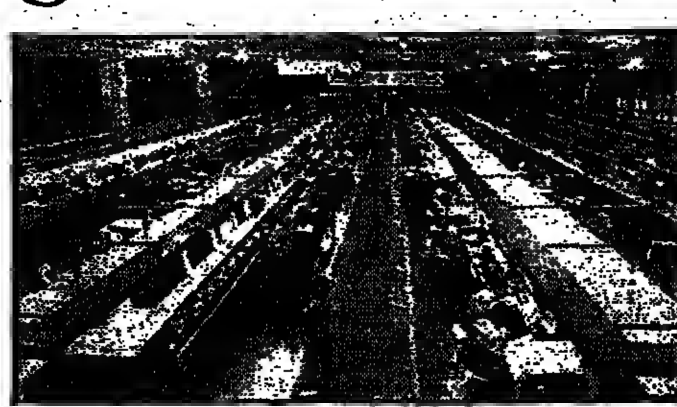
The GTE-Italtel-Telettra 1982 agreement could be affected, however, hy the recent agreement reached between West Germany's Siemens group and GTE, under which Siemens is to take 80 per cent of a new international venture.

Even if Italy does succeed in overcoming the hurdles (both financial and political) on the way to a Telettra-Italtel merger, analysts say the Italian industry will still be comparativaly small on the world stage. And while most countries are husy deregnlating their systems, Italy is farther behind, as it is still consolidating its fragmented sector.

Alan Friedman

Japanese Investment

Surge of fresh interest



Major suppliers are jostling for shares in Japan's $1bn a year equipment market.

TELECOMMUNICATIONS is the flavour of the momeot in Japan, especially among the major *soga shosha* (trading houses).

Nippon Telegraph & Telephooe (NTT) shares were offered to the puhlic for the first time last mooth at a cool Y1.2m each. The Government plans to offer 1.65m of its shares during the remainder of fiscal 1986, and two-thirds of its portfolio within the next four years.

Soga shosha stand to be the main beneficiaries of NTT's privatisation; and, on the back of falling commodity prices, snd a strong yan, they have been rapldly expanding into the telecommunlcations business.

The top six have collectively invasted Y260bn in (in the widest sense) telecommunications. Mitsui, the second higgest trading bouse, has set up a new group, the Information Buslness and Electronics Group, to handle its telecom related husioess.

The big battle now is for the lucrative international market. The Ministry of Posts and Telecommunications (MPT), which is regulating Jnpan's telecoms deregulation, has ruled that the sole international carrier, Kokusai Deoshin Denwa (KDD) wlll only beve one competitor. There are currently two wouldbe competitors.

C. Itoh, Japan's third higgest trading house, bas jolned forces with *Britain's Cahle & Wireless* to lead Kokusai Digital Tsushin Kikaku (KDTK) a consortium which hopes to win the international licence.

C. Itoh and C & W both have a 20 per cent stake in KDTK. Otber top investors are Merril Lynch, Toyota, Paclfic Telesis, NEC, Fujitsu, Bank of Japsn, and Dai Ichi Kango Bank.

General Motors, which had planned to hold 20 per cent of the equity, dropped out.

KDTK is battling it out with *International* Telecom Japan (ITJ), a consortium of the five other hig trading houses, Mitsubishi (Japao's biggest) 18 per cent; *Mitsui* 18 per cent; Sumitomo 18 per cent; Marubeoi 12 per per cent; and Nissho Iwal 12 per cent. Tbe Bank of Tokyo and the alectronics group, *Matsushita*, have a 4 per cent and 18 per cent stake respectively.

Tha C. Itoh group, encouraged by MPT, unsuccessfully tried to woo ITJ into a merger in October.

MPT will award the licence early next year. And the presence of C & W, as a foreign company, ensures the decislon be a political one.

KDTK is the more expansive option. C & W plaos to lay the longest ever optical fibre link: 5,000 miles of undersea cahle linking California to Japan. It and Pacific Telecom will handle the American end, while KDTK will be responsihle for the Japanese side.

The link sbould be operating by 1990. C&W is also involved in an optical fihre liok between Tokyo and Hong Kong—the other big partner for this project is KDD.

ITJ, by comparison, plans to use what already exists more efficiently.

The trading houses are competitors in some projects, partners io others. Japan Communications Satellite (JC Sat) is led by C. Itoh, 40 per cent, and Mitsui, which has an 18 per cent stake in ITJ, 30 per cent. Hughes Communications, a subsidiary of GM Hughes Electronics, has a 20 per cent stake.

The other satellite group is Space Communications, owned by Mitsuhishi Trading 75 per cent and Mitsnhishi Electric 25 per cent.

Would-be satellite operator, Satellite Japan, whose main hackers are Nissho-Iwai, 23 per cent, Marubeni, 22 per cent, and Sony, 20 per cent, was refused a licence by MPT, on the grounds that two main commercial satallites were sufficient.

The hig six are eqnlty participants in NTT International (NTTI). NTT bolds half the equity; with C. Itoh and Mitsubishi the next largest participants.

Sogo shosha are also heavily involved in valne added networks (VANs). Marubeni is by far the laader in VAN business, and has internetional links with America's Tymshare and Tymnet. It belongs to the Fuyo group, as do Hitachi and Oki, both operators of large-scala VAN services.

Nissbo Iwai is an equal partner with Fujitsu in an international VAN service, and is marketing agent for Sweden's Mailstar satelllte service. Mitsubishi is involved with a joint venture wlth IBM Japan; and Sumitomo with Intec and GTE.

The trading houses are active in the new domestic carriers—NTT's rivals: Mitsui, Sumitomo and Mitsublshi each have a 1.1 per cant stake in Nippon Telecom, whicb is 33.4 per cent owned by the sooo-to-be-privatised Japan National Railways.

Mitsnbishi has a 2.5 per cent stake in Dani Denden, wbich is led by Kyocera (28 per cent), the world's *largest manufacturer* of IC ceramic packages.

Teleway Japan Corp, which came into operation this month, *is* invested in by Mitsuhishi, 3 per cent; Mitsui, 2 per cent; and Sumitomo, C. Itoh, Maruheni and Nissho Iwai all with 1.8 per cent. The gronp is led by Toyota and Japan Public Highways.

Both Mitsuhlshi and Mitsui own 25 per cent each of Tokyo Telecommunications Network. The other half is owned by Tokyo Electric Power.

Lisa Martineau

Japanese Equipment Suppliers

The battle hots up

IN JAPAN the telecommunications equipment market is reckoned by analysts to be worth aronnd $1hn.

The recently deregulated Nippon Telegraph and Telephone (NTT) accounts for abont 33 per cent of the market. Last year it bought Y633bn worth from "the Family"—NTT's name *for* its suppliers.

The Family has 10 members. All are deeply embedded in *Japan's telecommnnication* market as a whole and all are poised to pick np as much of the new deregulated business as they can.

NEC is the higgest supplier, taking 19 per ceot of NTT business worth Y119hn. It is the second-largest producer of semiconductors in the world and its computer technology is licensed by Honeywell of the US.

NEC has a large-scale VAN operation called C and C VAN. It hooks into the large-scale VAN market through its PC network, C and C NET, NEC Software, and its teleconferencing service. It *is* also involved *in* an international VAN with Geisco.

NTT's second top supplier last year was Fujltsu, Japan's largest computer maker, which earned Y77bn from NTT.

Fenics is Fujitsu's company in the large-scale VAN market. NIF *is its* PC operation, in which trading company Nlssho Iwai has a stake. Fujitsu has an electronic datahase service and software operation in Fujitsn FIP. Like NEC, the company also provides a teleconferencing servica and is involved in an international VAN.

Hitachi and Oki took Y40hn NTT husiness each last year. Both companles are part of the Fuyo Gronp and tha large-scale VAN operators Hinet and Okinet. Oki is the leading Japanese manufacturer of communications equipment and produces mohile pbones in the US.

The other NTT suppliers (and what the NTT husiness is worth) are: Iwatsu Electric, Y22bn; Sumitomo Electric, Y20bn; Fujikura, Y17bn; Furukawa Electric, Y17bn; Nitsuko, Y15bn and Anritsu, Y14bn.

Foreign companies find it *difficult* to break into the NTT Family. But NTT is to hny (over tha next seven years) $250m worth of digital switches from Northern Telecom of Canada.

Analysts say the equipment is being used within NTT rather than for ontside customers, however. NTT is apparently worried about Northern *telecom's ahility* to provide back-up services and does not want to axpose its customers.

The government says that *telecommunications imports* during the last fiscal year, from the US alone, increased by 52 per cent, hut this is mainly nccounted for hy the satellite deals.

The Hughes Communications of the US, which is a 30 per cent owner of Japan Communications Satellite (Jc Sat) with trading houses C.Itoh (40 per cent) and Mitsui (30 per cent), has signed a $300m contract with Jc Sat to supply two satellite packages.

The other satellite company, Spsce Communlcations Co (SCC) (owned by Mitsubishi *Trading* 75 *per cent* and *Mitsubishi* Electric 25 per cent), has bought e $100m satellite package from Ford Aerospace.

Foreign companies, usually in partnership with the Japanese, are making a showing in the VAN markets. NI and C is a large-scale VAN owned by NTT and IBM Japan. IBM Japan is also teamed up with Mitsuhishi as the *large-scale VAN operator* AST.

The Mitsuhishi-IBM link goes back to the 1970s when Mitsuhisbi Electric failed to develop a mainframe computer capacity. The joint VAN venture was formed when lt was thought that foreign companies would be allowed only small share holdings in telecom VAN services.

Although this is *no longer* so—foreign companies can operate their own VAN operations—Mitsuhishi is too good a source of *potential* husiness *for IBM* to want to go it alone.

Mitsui and AT and T have a large scale VAN compeny in JENS. The advantage of the joint arrangements is that Mitsui can offer AT and T local engineering support and a customer base through its affiliates Nippon Univac and Toshiba.

Toshiba sells AT and T PBX's and minicompnter range here, for example. Nippon Univac engineering know-how is behind Mitsui's videotex service, which nses AT and T's software.

But the partnership is not entirely happy. Mitsui was less than pleased when the Industrial Bank of Japan assumed a *leadership* role *in* AT and T's 50 per cent owned VAN company ENS while Mitsui has been a long-standing sales agent for Northern Telecom—AT and T's major rlval in the digital switching market.

Although NTT was deregulated last April the live competition was not np and running until August.

The first to come on line was the Japan National Railways (JNR)—led Japan Telecom. The company is now leasing lines *connecting corporate customers* in Tokyo, Nagoya and Osaka at rates 24 per cent lower than NTT.

Daini Denden, led by Kyocera, is the world's largest mannfacturer of IC. It hought switches from the Digital Switch Corporation of the US for what the company descrihes as "several million yen"

The other two *NTT rivals*, Teleway Japan and Tokyo Telecommunications Network, came up this month.

Lisa Martineau

Scandinavia

Big demand for mobile phones

IN SCANDINAVIA, it is not unusual for business contacts to have as many as four telephone numbers to give out—*office*, home, weekend cottage, and (ever increasingly) a mobile telephone number.

The mobile telephone has surpassed all expectations in popularity—as one Swede put it "we spend a lot of time in our boats, and of course it's convenient to take a phone with you."

Televerket, the Swedish telecommunications administration, estimates that by 1990, one-in-ten cars will contain a mobile phone.

The main Scandinavian supplier of mobile handsets is Nokia-Mobira, part of the Finnish Nokia industrial group. It is the leading manufacturer of handsets in Europe, has 27 per cent of the Nordic market, and claims to have over 15 per cent of the world market for cellular telephones.

Ericsson, the Swedish telecommunications and electronics group, supplies switching systems based on its AXE system which automatically switches from one radio transmitter to another so that calls are not interrupted as the subscriber moves from cell to cell.

Ericsson claims to have 45 per cent of the world market in cellular subscribers—or 458,000 subscribers.

Nearly 100,000 of these are in Sweden, and about 80,000 in Norway, 54,000 in Denmark and 44,000 in Finland, according to their September 1986 figures.

The Nordic mobile telephone *system (NMT)*, which was formed by the telephone administrations in the Nordic countries in 1981 (but only joined by Iceland in mid-1985), has already reached the subscriber level that was originally forecast for 1995.

In the meantime, Nokia-Mobira says it is now subjected to handset quotas in parts of Scandinavia because of overcapacity *in these areas*.

"Overcapacity is a very big problem," says Mr. Kenneth Jonsson Nokia-Mobira's export *manager for the NMT area*.

The second problem is that growth in the US market has not matched expectations, which Mr. Jonsson blames partly on the fact that in the States, there is not necessarily any automatic "roaming"—ie when the set moves from city to city, it may not automatically switch to a new base station if this belongs to a different company. Within Scandinavia, automatic roaming is the rule.

The capacity problem could be solved with the subdivision of areas into mini-cellular systems, and when the 900 megahertz frequency comes into use at the beginning of 1987, in addition to the existing 450 megahertz frequency.

The 900 megahertz frequency combined with the use of compounders and expounders, should also mean an improvement in reception, which is subject to fluctuations especially when the receiver is near the edge of the base station range. Nokia-Mobira claims that listeners will be able to pick up shouts and whispers in future.

Ericsson also sells the handsets but is more interested in being the main supplier of subscriber systems.

The Swedish group now sells its AXE digital switching system in 65 countries and is hotly pursuing the US market. Ericsson and Siemens of West Germany want to be the third equipment supplier to the Bell companies, after AT&T and Northern Telecom.

Nynex, the Bell regional holding company that—combined with New York telephone and New England telephone—serves 13 per cent of the US population, signed a letter of intent with Ericsson's US subsidiary for an AXE switch which will be tested in the Manhattan network.

If the tests are successful, the deal could result in sales for Ericsson by 1988.

Ericsson recently agreed to supply US west with AXE digital switches for common channel signalling networks at Mountain Bell, Northwestern Bell, and Pacific Northwest Bell. The six AXE switches will be used between telephone central offices and centrally located data bases.

This summer, Ericsson stepped into an order for the Norwegian telecommunications administration which was more than a year behind in its conversion to digital lines.

The Norwegian Telephone Administration had originally ordered ITT system 12 as part of its modernisation. However, ITT was not able to deliver on schedule because of delays in developing the software and system to meet Norwegian specifications.

Ericsson's order for the Norwegian public network is worth Skr 90m. EB Telecom, Ericsson's Norwegian licensee, agreed to supply four main exchanges with more than 50,000 local and transit lines for Oslo, Stavanger and Bergen. There is also a contract option for an additional 20,000 lines for delivery in 1987.

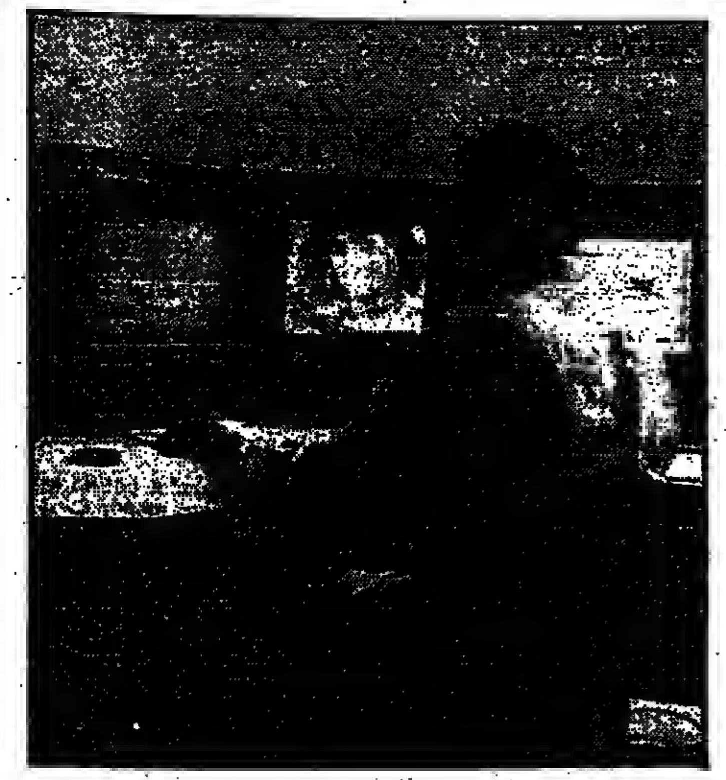
The Swedish Telephone Administration has continued with its installation of AXE digital switches. It is now concentrating on non-voice data and text communication and plans to put more than 50 per cent of its investment in non-telephone services over the next three years.

The high growth in data and text communication requires a better network—which was why Televerket started its initial investment in digital switches and pabxs.

Comvik, a Swedish mobile telephone systems supplier with 13 per cent of the market in Sweden, wants to offer a satellite business-to-business service between the states and Sweden using Intersat.

The aim is to provide businesses with more efficient telephoning services, instant contact with subsidiaries, competition on pricing, and maybe no encrypting service so that conversations cannot be overheard. The plan to go ahead is still waiting for Government permission.

Sara Webb



• EUROPE'S first Scitex telecommunications link for digital transmission of full-colour picture data has gone into operation at a London photographic processing centre for printers and publishers.

The system (above) at F. E. Burman links Scitex electronic page composition equipment with other equipment users in the US and Australia. Burman is already using the system to promote a colour news picture service to UK publishers.

The Scitex telecommunications package offers a wide range of lines and speeds, including land and satellite links for transmitting news pictures in colour. Burman's transmissions so far have all used standard telephone line link-ups.

The company is able to give editors a preview selection of colour news pictures in 'rough' low-resolution form before sending a final, high-resolution transmission.

• Below: In Japan a sales girl displays a range of nine new-style telephone handsets from the Nippon Telegraph and Telephone (NTT) which has around a third of Japan's $1bn telecommunications equipment market.

International collaboration

Joint ventures in a global market

COLLABORATION HAS rarely been more popular in industry than it is today. Cross-frontier joint ventures, minority stakes in companies with strong local market positions, co-operative research and development projects, combined investment in heavy capital programmes, government-sponsored sectoral schemes—the list is long, growing, and particularly extensive in the telecommunications industry.

Yet over the years, the record of collaborative enterprises has not been particularly inspiring. Industry is littered with examples of projects that have come apart under the pressure of events.

Why then are the telecommunication companies today finding themselves pushed so inexorably into the embrace of partners with whom, in an ideal world, they would probably prefer not to be involved?

Part of the reason is the sudden, but irreversible globalisation of world markets. In the public switch market, for instance, most of the large telecommunication equipment manufacturers who are now rushing into alliances enjoyed the security of relatively friendly home markets until the development of the present range of digital equipment.

These markets, they are now finding, are hardly sufficient to support the cost of continuously enhancing the efficiency of the present range of products, and certainly will not bear alone the expenditure on the next generation of telephone exchanges.

Market pressures of this kind lie behind several of the collaborative attempts of the recent past:

• AT & T, the US long distance and exchange equipment manufacturer, has linked up with Philips of Holland to try and break into the European market. The joint venture is now trying to take over CGCT in France.

• CGCT, which has 16 per cent of the French market, is also being pursued by other telecommunications companies, notably Siemens of West Germany, which is trying at the same time to break into AT & T's home market in the US.

Siemens has had to abandon its plans to link up with the switch manufacturing subsidiary of GTE, the large independent US telephone operating company, but many analysts expect talks to resume at some point.

• CGE, the French electrical group, is planning to take over the switch-making subsidiary of ITT, the US-based conglomerate, in a deal which will allow ITT to maintain a 37 per cent stake in the business. This will give CGE a potential stake in several European markets, particularly West Germany through ITT's subsidiary there.

• In the UK, the attempted takeover of Plessey by GEC would have allowed the integration of their telecommunications subsidiaries, both of which are working on the System X exchange; they are now talking of some form of co-operation.

Another area of collaboration is arising out of the convergence of telecommunications and computer technology. Two industries which grew up independently are now coming together because users no longer want to treat data processed on computers as isolated gobbets of information.

The computer industry is shifting towards the concept of networking—tying together a variety of departmental machines, from personal computers to printers and files, in a system in which they talk to each other.

Similarly, the telephone companies are beginning to look carefully at computer groups. They, too, see the possibilities of networking, and are anxious to secure the business that flows to their basic communications operations if they can offer complete packages to a customer.

Among the main companies moving into this type of venture have been AT&T, which, through an agreement with Olivetti of Italy now has access to a range of personal computers. A recent decision by the US regulatory authorities has allowed AT&T to drop artificial barriers it had been forced to construct between its telephone and computer activities. It will therefore be freer to move into the networking business with the full strength of the corporation's resources behind it.

Another example is IBM, the computer giant, which has links with two telecommunications companies—MCI, the long-distance carrier, and Rolm, the manufacturer of private exchanges.

Third, companies are forming alliances as a swift way of filling in gaps in their own products and services. British Telecom, for example took over Mitel in Canada to give it an entree to the customer premises equipment market.

Similarly, Cable and Wireless of the UK, historically an operator with lines linked to British overseas interests, has now signed a series of deals to create its "global highway" concept of a fibre optic cable network spanning the world from western Europe to Japan.

A third kind of collaboration, increasingly popular in recent years, is growing up in research and development. Here, the idea is to develop technological competence at a reduced price while retaining the independence and individual identity of the companies concerned.

This form of co-operation has arisen out of the recognition that the cost of remaining at the forefront of technology is rising beyond the point where many companies can stay in contention.

At the corporate level, this has given rise to projects such as the common, cross-frontier design work on telephone exchange equipment launched jointly by Plessey (UK), Siemens (West Germany) CGE (France), and Italtel (Italy).

But much more impact has been made in this area from Government-backed initiatives such as the Europe-wide Esprit and RACE programmes. Esprit, for example, which is aimed at supporting a competitive European information technology industry, is working on office systems and communications; RACE (R and D for Advanced Communications Technologies for Europe), is examining the technological base for initiatives on the EEC-wide broadband communications network.

The challenge facing all of these co-operative projects is to show that they can deliver useful solutions to problems which may require some extremely difficult commercial and political decisions.

Bringing companies together usually means that there are possibilities of capacity reduction, but it is not easy to cut jobs when the decision raises questions of national industrial competence.

Similarly, alliances aimed at filling out product lines tend to be a prey to arguments between the partners over financial control—and research and development joint ventures raise tricky problems of integrating corporate cultures. The new wave of collaboration may have some rough riding ahead of it.

Terry Dodsworth

Call of the Orient

China's vast potential

CHINA'S major computer and telecommunications exhibition—Expo Comm 86—held in Beijing last month, attracted many of the world's foremost telecommunications suppliers, eager to secure a foothold in what is potentially the world's largest telecommunications market.

China's telephone network is poorly developed, with an average penetration of only five telephones per 1,000 people of its 1bn-plus population. But, like so much else in China, this situation is changing.

China is vigorously pursuing a long-term objective of becoming an advanced industrial nation by the turn of the century. Since 1978, when Deng Xiaoping effectively gained control of the party machine, a series of major reforms have been transforming the country.

Subscribing to the view that improved telecommunications are often the key to economic growth, particular attention is being paid to upgrading the telephone network. The telecommunications infrastructure has recently been confirmed as one of the top priorities in China's Seventh Five Year Plan (1986-90) and US$30bn are to be invested in modernising it.

Indeed, in a recent statement Yang Taifeng, the Minister of Posts and Telecommunications, no doubt with a touch of the Departmental competitiveness not unknown among Western Ministers seeking a slice of a central budget, declared that communications growth should be faster than that of the economy as a whole.

A generous assessment by most international observers is that China's telecommunications network is some 20 years behind most other industrialised nations, technologically speaking. Its network uses manual switching equipment and automatic equipment that is over 50 years old. But this is rapidly changing.

China's first sophisticated telecommunications national system was completed in 1976 and comprised an 1,800-channel coaxial cable connecting Beijing to Hangzhou via Shanghai. A national telephone centre was inaugurated in Beijing and, by 1980, with the installation of Intelstat ground stations, direct links to 47 countries were established.

Although China manufactures some telecommunications equipment such as crossbar exchanges, it is at present beyond her capabilities to produce much of today's equipment, notably digital exchanges.

To meet these deficiencies, China has embarked on an "import drive" of some magnitude. The new "open door" policies have led to something approaching a goldrush environment in which a procession of the world's telecommunications companies, encouraged by soft loans and export credit from their governments, have descended on China's major cities.

To date, Japan with the aid of soft loan financing has achieved the greatest success. Other countries, however, have had notable successes; they include France, with the sale of digital exchanges and transmission equipment from Alcatel-Thomson; Sweden with its digital exchanges from Ericsson and the United States in collaboration with Holland supplying fibre optic transmission equipment through AT&T and Philips.

The UK has had limited success, through GEC's sales of push-button telephones, STC's fibre optic transmission equipment and BICC's contracts to supply cable.

Cable and Wireless are implementing a joint venture with China in setting up the Shenda Telephone Company in Shenzen.

However, the recent trade and economic development seminar between China and Britain, the largest-ever mounted between the two countries, is likely to boost the UK's figures significantly.

The two-day event which took place during the Queen's visit to China has led to various contracts and agreements being signed.

These include Plessey's collaborative deal with the Post and Telecommunications factory in Shanghai to establish a centre for service, maintenance and technical development of a range of digital equipment, Cable and Wireless' contract to develop the telecommunications system in the Yangtse Delta regions and STC's five-year technology transfer agreement to manufacture telecommunications equipment, as well as to set up an advanced production facility in a deal which could be worth between £20m and £25m.

Strong emphasis in the modernisation programme is being given to the main business areas and cities such as Beijing, Shanghai, Guangzhou, the special economic zones of Xiamen and Shanzen and the 14 "open" coastal cities where telecommunications assumes international importance. The rural areas are likely to have to soldier on with antiquated equipment for some time to come.

The co-ordination of China's network into a coherent national infrastructure is likely to be hampered by the bureaucratic nature of its telecommunications industry. At present the country is divided into seven regions controlled by the Ministry of Posts and Telecommunications (MPT). While the MPT is responsible for national policy and standards, each region has a large measure of autonomy. This has been known to lead to fragmentation and unevenness in the development of a national system.

While China is eager to import equipment in order to modernise rapidly she is anxious to set up her own telecommunications industry and is therefore encouraging joint ventures and technology transfers. One example is the Sino-Belgoum joint venture which in 1983 set up the Shanghai Bell Telephone Equipment Company to manufacture digital switching equipment.

The deal, with Bell Telephone of Belgium, an ITT subsidiary, involved the local manufacture of System 12 exchanges and it is expected that output will reach 300,000 lines a year by 1988.

Other deals of this kind include Alcatel of France's contract to supply 500,000 telephone lines together with the transfer of manufacturing ability and telecommunications research facilities, and, of course, Cable and Wireless's joint venture referred to earlier.

China has also recently emerged as a leading contender in the space industry alongside Arianespace and the Japanese for the launch of commercial satellites.

Following the American space shuttle disaster and the US Government's decision to reserve shuttle launches for scientific and military satellites the Chinese have had discussions with the UK, the US, Italy, Pakistan, Brazil, Australia, Argentina and Canada to explore the possibilities of China launching their satellites.

Using their own expendable Long March rockets, China claims it can launch satellites 15 per cent cheaper than her competitors.

Jon Moggridge

Switching Technology

Integration of voice, video text and data

THE GROWING tempo of telecommunications liberalisation will widen considerably the choice of equipment and services available to users.

Bringing together the increasing number of telecommunications services—voice, data, text and video—onto a single network should yield substantial savings in the cost of running the services and providing subscriber equipment.

There is still little clear evidence of integration developing between European states. There is, however, a lot of interest in service integration, and according to the Logica systems consultancy group, most countries are planning to start an integrated services digital network (ISDN) before the end of the decade.

"Most of the efforts towards European harmonisation are concentrated on co-ordinating the varied developments towards ISDN, and the subsequent plans for broadband networks throughout the continent," says Logica in a report published earlier this year, entitled: European Communciation Services—Towards Integration.

Telecommunications plays a major role the economics of the EEC member states and now accounts for 2 per cent of gross domestic product, increasing to 7 per cent by the year 2000.

Manufacturers in the telecommunications sector continue to be successful in world markets and are at the leading edge of technological advance.

However, there are disturbing portents for the future, says *Logica*. Telephone penetration in the EEC is substantially lower than in Japan and the US.

Growth in the equipment market seems slower in Europe at 5 per cent a year, compared to the US where it is 8 per cent, and is hampered by market fragmentation along national boundaries and by lower levels of investment.

Data transmission is a smaller proportion of total traffic in Europe at 3 per cent than in the US at 5 per cent.

European suppliers, who are strong in traditional technology, are almost wholly reliant on non-European manufacturers for micro-electronic components.

"Digitalisation has revealed the outdatedness of European industry," concludes Logica.

"In addition, the opening of the US market has led American firms to market aggressively outside the US, while large scale Japanese government *investments* in ISDN will allow suppliers there to develop a lead in supplying the next generation of communication equipment."

However, getting the individual European PTTs to agree on anything other than price-fixing has proved to be a monumental task.

An European Parliament resolution in March 1984, deplored the community's failure to take rigorous action in defining standards for the connection of subscriber equipment.

It pointed out that wholly incompatible videotex standards from the *UK* and France had developed within the EEC, and commented also that "it is particularly absurd that mobile radiophones should not be usable throughout the European Community."

It proposed that "national centres responsible for granting *type approval* of equipment be required to comply with the same standards and practices throughout the community, and that in the long term they gradually merge to form a common integrated centre."

In August 1984, a memorandum of understanding was signed between the Commission and the Conference on European Posts and Telecommunications (CEPT), in which the latter undertook to carry out technical work leading to the *drafting* of common specifications for the type approval of telecommunications terminals.

However, the equipment suppliers were excluded, so in October 1984, a draft agreement was reached on collaboration between CEPT and Cenelec, the *European Committee* on Electrotechnical Standards, in which suppliers play an important role.

In effect, Cenelec has taken responsibility for technical standards while CEPT is examining network issues—though the demarcation is not *rigid*.

The approach of fully-integrated voice and data networks offer huge opportunities for suppliers of exchange equipment, but as some have found, the costs and technical obstacles of developing new generations of equipment can be *formidable*.

For example, the Compagnie Generale d'Electricite (CGE) recently won the French Government's go-ahead to lead a consortium to take over ITT's telecommunications activities, and inherited some problems in the process.

In July, the future of ITT's System 12 local telephone exchange switch was put in jeopardy because of a design flaw in its development.

CGE engineers said they would be able to deal with any remaining problems with the product, but ITT's $1bn System 12 development project was criticised as being too ambitious, with top management and engineers disagreeing on some issues and the product developed in dispersed locations in the US and Europe.

According to the critics, another major fault is the fully distributed processing system which does not have a centralised function.

Put in a nutshell, this means that if all the units, the call processing modules, are talking to each other at once, the system becomes inefficient and overloaded—rather like a committee meeting without a chairman *where all members* shout to make themselves heard.

Another problem, according to a former technical head of ITT, is that System 12 does not discriminate between simple and complex processing tasks, resulting in inefficient processing, something which the company *admitted* may be *difficult* to correct without starting from scratch.

System 12 has been delivered to 13 countries and ITT says it has orders for 12m lines. At present, only a million lines are operating, and ITT admitted to delivery delays in Norway, *Denmark* and Spain.

Despite the European Community's efforts in breaking down telecommunications barriers, it may take the muscle of outside companies from the US and Japan to bring this about.

CGE for example, has sought the French Government's approval for a deal with AT&T under which the latter would buy microwave transmission equipment from CGE's Alcatel subsidiary in exchange for the US company's entry with its partner Philips into France's domestic market for public switching.

Under this scheme, Compagnie Generale de Constructions Telephonique (CGCT), an ailing former subsidiary of ITT, would produce the AT&T/Philips ESS-5 switching systems.

More recently, Italtel, the Italian telecommunications company, has entered the bidding to acquire CGCT. Other parties include a CGE/AT&T consortium, Siemens in Germany, and Ericsson in Sweden.

Rapid developments in technology and changes in legislation have combined to transform the telecommunications industry throughout Europe and the world over the past few years.

To survive, the equipment suppliers will not only have to exploit the latest techniques in their products and services, but be prepared to re-organise to meet the demands of an increasingly dynamic market.

Boris Sedacca

Public switching equipment sales in the UK

£m	1981-82	1982-83	1983-84	1984-85	1985-86
All public switching equipment (including contract development)					
Estimated market size	565	575	555	560	650
of which:					
GEC sales	215	209	173	162	258
Plessey sales*	209	230	195	256	261
Market share of					
GEC	38%	36%	31%	29%	40%
Plessey	37%	40%	35%	46%	40%
Combined	75%	76%	66%	75%	80%
System X (including contract development)					
Total System X turnover	62	71	65	226	463
of which:					
GEC	24	27	28	83	235
Plessey*	26	30	37	143	228
Market share of					
GEC	39%	38%	43%	37%	51%
Plessey	41%	42%	57%	63%	49%
Combined	80%	80%	100%	100%	100%

*Excluding development sales sub-contracted to GEC in 1983-84 to 1985-86.

Source: Monopolies and Mergers Commission report.

Private Networks

Internal data exchange systems

AT ONE TIME, telecommunications was considered by many managements to be another one of the office overheads which should just be "kept in check."

Today it has been recognised that efficient communications within a company are vital to its success.

It should be noted that a telephone company, such as British Telecom, aims to cater for majority needs and so may not be able to devote resources to satisfy a great number of unique requirements. Thus, private networks are frequently used as the means of meeting these needs.

There are many specific situations, such as interrogating remote computers, where it would be inappropriate to use the public switched telephone network (PSTN) because, even if the voice grade lines were of a suitable quality, the time taken to "set-up" the call would be far too long.

A typical global network will provide a communications infrastructure with major nodes and tributaries in a number of countries.

The network operators will aim to be able to provide his organisation with the same level of facilities and security everywhere across the system, even if the public networks in the various countries cannot offer these facilities.

Modern digital PABXs provide advanced facilities such as "follow-me" and conference calls to the users within a single site. When these systems are networked it is possible for these facilities to span the whole system so that it will be as quick and easy to contact a colleague the far side of the country as one in the next office.

Now, however, with introduction of digital transmission and digital PABXs modern systems offer far more opportunities for the handling of data, text and image traffic in addition to speech.

Companies such as Northern Telecom (via its UK partner GEC Telecommunications) and Plessey have been supplying digital PABXs for a number of years. More recently they have been offering systems which are compatible with the integrated services digital network (ISDN), and are claiming that existing models are upgradeable to this standard.

ISDN is a concept being developed internationally by the carriers and major telecommunications equipment suppliers around the world whereby just one network will be able to support text, data and image traffic in addition to voice.

The result of this is that companies installing the latest generation PABXs and interconnecting them in private networks will be able to take advantage of advances in telecommunications at an early stage.

This will be very much in advance of ISDN being widely available on the public network.

So what benefits will be the user obtain?

Early private networks took the form of leased lines, linking the telephone switchboards at the various sites operated by a company.

As they were used on heavily-used routes they enabled a company to improve the intra-company communications at the same time as being able to keep better control of costs.

When used in conjunction with PABXs it became possible to dial directly from one site to another and then, without switchboard operator intervention, to dial through to the desired extension.

Obviously, a resource that was not being fully utilised also attracted a lot of attention. Thus, when it was not needed for voice, it could be used for, say, connecting *facsimile* machines. Equipment was also developed (data over voice) which allowed text messages to be sent by teleprinter along the same wires concurrently with a telephone conversation without any *appreciable* degradation of quality.

Similarly, modems which are needed to allow text and data to *be transmitted* over *normal ana*logue telephone lines, have increased in sophistication with the result that an ordinary telephone circuit can now carry more than ten times the amount of data of a few years ago.

Where there is an appreciable amount of traffic to be carried *over any* particular path between two PABXs, it is frequently cost-effective to install a leased circuit. Once this has been done a private network exists—even if rudimentary.

From then onwards, additional traffic—and not just voice—can be carried and equipment installed that will increase the throughput of a line. For example, during the night data can be sent to enable computer file updates to be carried out.

Similarly, internal memos can be handled by electronic mail between sites, either overnight or when the circuits are not being used for telephone conversations during the day.

The carriers have a conflict of interest. While, on the one hand, they obtain a rental income from supplying leased lines, they also suffer from the consequent loss of revenue on the public switched telephone network (PSTN).

In the case of a public telecommunications monopoly it is just one division competing with another. On the other hand, in a liberalised market such as the USA and now the UK, the customer can go to an alternative supplier.

Thus, the prime carrier finds itself "bypassed." As well as being an emotive issue with the carriers it is seen as a major threat to their revenues as they feel that the most lucrative markets are being creamed off.

While buying one's telecommunications services from more than one supplier can give a negotiating advantage, there is always the risk of buck-passing when faults occur.

This is a problem that poses *difficulties* with international networks where there are a number of carriers involved. However, in the case of an international network, even if one had a turn-key contract in this country with BT for an entire network its jurisdiction would not extend to other countries.

This *is* a situation that has been recognised in the European Community. Over the past five years the EEC has been studying the telecommunications environment with one aim being to achieve the harmonisation of technologies and tariffs across the whole Community.

Similarly, the Commercial Action Committee of CEPT (Conference of European Posts and Telecommunications) is working on a managed data services strategy. Networks would then be provided by a single co-ordinated external body set up by the European PTTs. While *this would* provide the harmonisation and co-ordination required, it would be at the expense of there being a single dominant supplier.

There is the risk that such a supplier, not being subject to the pressures of the marketplace would underdeliver and thus hold back progress. Hence, harmonisation could come at the expense of innovation.

Adrian Morant

Telecommunication technicians checking a circuit board inside a telephone exchange in Oman in the Middle East.

Cellular Radio Services

Nordics show Europe the way

THE SUPERPOWER summit was not the only event which happened in Iceland this year. In July, Iceland became the latest country to offer a cellular radio service.

The Icelandic authorities report explosive growth. They had been expecting 500 subscribers by the year-end. After two and a half months, they already had 1,450.

The Icelandic experience is unusual only in the use to which some of its people are putting the cellular phones: small fishing vessels are using them up to 60 km from shore. Iceland's new service was very typical in releasing explosive demand.

"Almost everywhere, predictions have under-estimated reality," says Mr Nigel Cawthorne, who edits European Mobile Communications, a monthly newsletter on the industry.

In many industrialised countries the sight of executives holding conversations on their carphones while driving between meetings is now becoming commonplace.

The Scandinavian countries were the first off the mark in Europe. Sweden, Denmark, Norway and Finland inaugurated the Nordic Mobile Telephone network in 1982.

With this head start and fuelled by their high standards of living, *they now have the* highest penetration per 1,000 population of any countries, according to Mr Cawthorne's figures. In Norway, it is 19.14; in Sweden, 11.85; in Denmark, 10.42; and in Finland, 9.25.

Scandinavia has also developed some thriving equipment manufacturers on the back of this large customer base. Mobira, part of the Nokia industrial group of Finland, is the leading mobile telephone *supplier* in Europe.

But the most recent success story, on the service if not equipment side, is Britain. The UK service began only at the start of last year, but it already has more than 100,000 subscribers.

Most observers praise the UK Government's decision in licensing two competing networks—Cellnet and Racal Vodafone. The pace of development would almost certainly have been much slower if one operator had been given a monopoly.

Mr Colin Davis, Cellnet managing director, told a recent conference on radio communications in Stockholm: "I believe that demand was latent, waiting for the opportunity to express itself, but competition stimulated awareness among potential customers. It also stimulated the UK system operators, both of whom have had to grow their systems very quickly in order to satisfy demand."

Cellnet and Racal Vodafone have each *invested* more than £100m on base stations, switches and other equipment needed to win as many of the new customers as possible.

Earlier this year, their competition became so fierce that it almost precipitated a price war. More than 500,000 subscribers by 1990 is the figure now being confidently predicted by executives within the industry.

Cellnet and Racal Vodafone are likely to be making substantial profits well before then. Indeed, £125m was the figure being suggested as the value of the 15 per cent stake held in Vodafone by Millicom, the US mobile communications group, when it was recently reported that Millicom was considering selling its stake.

However, the rest of Europe, including the Scandinavian countries, has adopted a different model to the UK: a monopoly service based on the telephone authority.

France and West Germany have been the laggards in cellular phones, partly because of the collapse of an ambitious attempt to agree on a joint system. West Germany is now developing apace; in October, there were 15,000 subscribers, up from 12,400 the previous month. But France, where the number of customers remains very small, still appears to have technical problems in its system.

Even so, the Stockholm conference heard predictions that West Germany would have 200,000 subscribers, and France 120,000 subscribers, by 1990. On past experience, *these* figures are almost certain to be under-estimates.

In the US, the service is limited mainly to large towns because of the geography of the country. Development was patchy to start off with. Mr Herschel Shosteck, whose research and consultancy company tracks cellular developments in the US, blames the country's "bizarre and chaotic" regulatory arrangements.

Under the US *regime*, like that in the UK, there are two competing networks. The difference is that the operators of the networks need not be the same in the more than 300 metropolitan areas designated by the authorities.

However, Mr Shosteck says that more stability is being introduced into the US system as big companies are gobbling up the small companies which entered the market. In particular, the giant Bell regional operating companies are showing great interest. One, BellSouth has moved into the UK by buying a 40 per cent stake in Air Call, the UK radio communications group.

Users of cellular phones are now increasing steadily by more than 20,000 a month in the US, according to Mr Shosteck's figures. He predicts there *will* be more than 600,000 by the year end and 1.5m by 1990.

While most countries are concentrating simply on expanding their basic network, much thought is already being devoted to medium-term developments.

Transition from the analogue systems currently in operation to digital is one such idea which is actively being explored. Digital cellular networks would allow more reliable transmission of data, easier interconnection with the increasingly digital public telephone networks and possibly also cheaper services.

Linked to this discussion is the desire for more cross-border cellular networks. Authorities in Europe *are considering* an ambitious proposal for a pan-European digital cellular radio network, which would allow a German lorry driver travelling along an English motorway to phone his depot back in Frankfurt.

Formidable difficulties have to be sorted out, however before this pan-European dream becomes a reality, including further development of digital technology; agreeing on common standards; and devising arrangements for accounting and billing.

David Thomas

Mobile telephone sales are surging ahead in Europe, particularly in Britain. Above, a port official uses a Telecom Steel mobile phone, *manufactured* by NEC.

Mercury's network operations centre in Birmingham, where an advanced computer-controlled telemetry system is used to monitor and control its telecommunications network.

Electronic Publishing

More data services come on stream

INFORMATION SERVICES such as computerised database retrieval are starting to take off, particularly in the US, though profits are still elusive.

The reason, apart from the number of subscribers needed to make an electronic publishing service break even, may be that once the information has been delivered in electronic form and converted to "hard copy," the information provider has no control over how widely that information is distributed.

The value of the information provided by these services must outweigh their cost to subscribers. They are nevertheless expensive services and, as far as the subscriber is concerned, their benefit must be spread as widely as possible.

Electronic publishers often have a job convincing the custodians of their primary sources of information, the traditional publishers of hard copy information in magazines and newspapers, that their information will not be pirated (fall into the hands of people who have not paid for the information).

The software industry is currently facing a similar crisis of piracy.

Mr Trevor Havelock of Hotline, a new online business information service launched by British Telecom in September, acknowledges the problems of drawing up republishing agreements.

"Publishers have been slow to come to grips with the realities of Electronic publishing" says Mr Havelock.

"Their initial reaction to anybody who wants to use their information is that they should buy back issues. The chances are that the user will not know where to find the information unless he is using a librarian with superhuman skills."

Some services such as Global Analysis Systems (GAS), which provides information on economic, political and strategic events in 100 countries, have geared themselves up from the start to publish information exclusively in electronic form.

GAS itself takes in information feeds from outside services including securities trading information from services such at Reuters, Bridge Data and Telegurs, and adds value by producing detailed economic statistics and making editorial comment of an economic or political nature.

It pays for these services and, in turn, collects money from third parties publishing its information. Such customers include BT's Hotline and Textline, a similar service established some years ago by Finsbury Data Services.

Textline provides text abstract retrieval facilities on a wider variety of business publications worldwide including national newspapers, business journals, press releases, news tapes, corporate financial reports, newsletters and brokers' surveys.

In addition to searching free text, Textline employs an extensive range of indexing terms that further help to identify vital areas of business information that cannot be retrieved using free text retrieval alone.

For example, stories containing proprietary product names of pharmaceuticals but not necessarily the term "pharmaceuticals" would be indexed under pharmaceuticals.

Another competitor in this market, McCarthy On-Line provides full text retrieval, rather than abstracts, albeit from a smaller number of sources.

"We go for quality, not numbers," says Sarah Pabody of McCarthy On-Line. "We see no point in monitoring a lot of provincial newspapers. We use the most popular sources of business information."

One advantage of this service is that a standard IBM Personal Computer or compatible machine with modem can be used instead of the more esoteric terminals used by Hotline and Textline.

Datasolve, a Thorn EMI Information technology company, currently markets two major online information products: World Reporter and World Exporter.

Originally developed in a joint venture with Datasolve and the BBC, World Reporter is the UK's largest full-text international news and current affairs service, offering a 250m word database of authoritative sources such as the Financial Times, the Guardian, the Washington Post, Asahi News Service, the Economist, Associated Press, the BBC Summary of World Broadcasts and the BBC External Services News.

World Exporter is a business intelligence service to help organisations trading overseas identify new opportunities and assess associated risk and financial implications. As well as business media sources, it includes databases from The British Overseas Trade Board, Plans and Projects Monitor, Euromoney and Sales Leads International.

IPC, the world's largest publishing company, has a number of electronic publishing services under the umbrella of Reed Telepublishing.

ABC Travel Guides, a leading publisher of travel related information, is part of Reed Telepublishing, formed in January 1984 to spearhead Reed International's move into electronic publishing. The company is a major publisher of printed material, from British Rail guides to airline timetables.

In 1984, ABC launched its Electronic range of products for the travel trade with a computer-based version of its best selling World Airways Guide. This is delivered to the subscriber by Prestel, or by the private Travicom computer network.

The majority of travel agents already use one or other of these networks to access airline and tour operator information. The ABC product allows them to look up air schedules and fares on the same terminal.

A year ago, the company installed a large IBM 3083 mainframe computer to support this development. The software for this system was developed specifically for ABC by another Reed company, International Computerprint Corporation (ICC) of Fort Washington in the US. ICC has wide experience in computer-based publishing and has recently been awarded a contract to computerise the Oxford English Dictionary.

Lexis, a comprehensive legal library and word-search system, is owned by Mead Data Central of Dayton, Ohio in the US, and marketed in the UK by Butterworth Telepublishing.

Earlier this year, the company acquired Eurolex, the main UK rival to Lexis, from the International Thomson Organisation. Eurolex was in financial trouble and faced closure. In the event, the Eurolex database was absorbed into Lexis.

Lexis was more expensive than Eurolex, and although some customers moved to Lexis, Butterworth Telepublishing would not be drawn on numbers.

The decision to acquire Eurolex had to be made against a history of adverse trading conditions for computer-based legal research companies in a market that was growing very slowly.

Although new electronic publishing services are continually coming on stream, it is far too early for a shake-out, which may result in a loss of confidence among subscribers.

Furthermore it may reinforce the view that only large companies can afford the benefits of such services, that only large companies can set up these services, and that these services have to be expensive in order to be viable.

Boris Sedacca

New Public Services

Sales set to rise fast

AGONYLINE IS no joke. It is now one of thousands of new public services available by telephone—part of an exploding new industry called value-added network services (VANS).

If a service of any description, including an agony aunt, is added to an ordinary telephone line, it becomes a VANS. The big sellers, however, are electronic mail, financial information and network management.

Forecasts for cash earnings in VANS markets are spectacular. Sales in western Europe are worth \$200m a year and will rise to \$5bn year by 1992, suggests Logica. The UK will lead with 30 per cent of that figure because recent deregulation means fewer obstacles to independent suppliers.

By using a VANS system, a company saves on the capital and staff it would need to operate the same service in-house. Small companies can start VANS for low capital outlay by piggybacking them on established VANS systems. British Telecom carried other VANS on Telecom Gold and the data-only network, PSS.

Most business users, however, still see the telephone line as solely a means of talking to someone far away. So, in October, the UK's Department of Trade and Industry (DTI) started a £1.25m two-year awareness programme, called Vanguard.

Such programmes have had mixed results in the past. But this time the sector has been deregulated first. Since August, controls only apply to VANS worth over £1m a year, or whose owners have a turnover more than £50m a year. Above those levels there are half a dozen rules covering publication of tariffs and conformance to technical standards.

Some companies have foreseen the cash potential of VANS in a deregulated environment. In 1984, IBM and British Telecom tried to set up Jove, a super-VANS which could carry other people's services and data, but managed by IBM and BT. The then-Secretary of State for Trade and Industry deemed that the joint venture would squash competition, and stopped it.

Both companies have since started up separate network services. BT has managed international private networks for several years—it operates TWA's European data network. The company entered UK network management in October, valuing the management sector at £300m a year by 1990s. The first customer is British Aerospace.

IBM moved even faster. Its UK national network already has several customers. For example, it links automated teller machines (ATMs) from different building societies.

A card-carrying customer of, say, the Leeds Permanent can use Alliance and Leicester ATMs. The ATM reads the card and sends the cash request around the Alliance network. The VANS provides the control and bridge to the Leeds network and into the head office computers.

After checking that there is enough money in the account, the authorisation travels back through the networks to the Alliance ATM and cash is dispensed. The transaction takes about 20 seconds. The building societies can proceed with the task of marketing, knowing that network management is someone else's problem.

Other big VANS suppliers include Fastrak and Istel, subsidiaries of Midland Bank and British Leyland, respectively. Now the BBC and ITV have entered the fray. They will broadcast data services and say that for over 100 special receivers the service can compete with telephone distribution.

Each of these carrier networks take specialised products to customers' offices. There are online databases for farmers and for journalists and for equity dealers. Just before the August deregulation, 782 VANS licences had been issued to 195 organisations.

In France there are 2,500 VANS going out to over 1.5m Minitel screens. They are privately operated, but the Minitel network, called Teletel, is state-owned through the telecommunications body, the DGT.

Teletel is similar to Prestel which has under 70,000 users. The DGT gave away the Minitels and recoups the money by not having to publish directories and from the extra calls made to the VANS. Already there are reports of Minitel millionaires, proprietors of their own lucrative services.

West Germany has the most restrictive VANS environment in Europe. Even there the Deutches Bundepost (DBP) has allowed competition in electronic mail. Nevertheless, Logica predicts the attitude of the DBP will hold back VANS development in the country.

In the US, the market is less than clear with many restrictions on the regional Bell operating companies (RBOCs), lifted only this summer. Each one is about the size of British Telecom and they are eyeing opportunities in Europe.

Two years ago Pacific Telesis bought the fledgling British electronic mail company, One-to-one. It now takes second place in the market after Telecom Gold. In August, Georgia-based Bellsouth took a 40 per cent stake in Aircall, which operates several UK VANS.

Battle lines are drawn with BT's purchase, earlier this year, of ITT's Dialcom subsidiary, from which the Telecom Gold service was originally licensed. All eyes are now on Western Union to see what it will do with its unprofitable Easylink electronic mail service. Easylink in the UK is licensed by Cable and Wireless.

The Japanese VANS market is currently worth about \$50m a year. Now AT&T is moving in with 18 Japanese partners, including the Bank of Japan, Fujitsu and Nippon Life Insurance Company.

International telephone lines make it easy to set up international VANS. One such is Edinet which carries documents across the North Atlantic and is operated jointly between British Telecom and McDonnell Douglas. Such deals can create problems for customs and excise officials. Millions of pounds worth of information crosses international borders, travelling on wires or by satellite, out of sight and out of mind.

Danny Green

Customer Services

Centrex forces changes

PRIVATE TELEPHONE switchboards in Britain will start disappearing next year. It has been happening in the US for over a decade and the cause is centrex.

With centrex much of what happens on an ordinary office switchboard is duplicated in part of the main public switch reserved for one customer. The result: companies can save on capital outlay, floor space, telephone management staff and electricity costs. One of the telephone companies in Washington DC, for example, now has more than 43 per cent of its business lines on centrex.

Ten years ago, companies generally changed their private telephone switchboards (PABXs) every 15 years. Now it is more like every eight years. Between 1982-85, most companies exchanged their pre-electronic switchboards for a new generation controlled by computers. Now there is little or no growth in sales of these items. The problem facing the suppliers is how to add enough value to PABXs to make companies scrap what they have now. And they face the new challenge of centrex.

UK manufacturers, such as Plessey and GEC, have been caught napping by centrex. Mercury is installing centrex on kit bought from Northern Telecom of Canada, while British Telecom is buying from Philips. "System X will have centrex-type facilities maybe next year," says Mr John Hooley, Plessey market planning executive.

Plessey has more than 80 per cent of UK sales of large PABXs and, in common with other manufacturers, will lose sales if customers prefer the sound of centrex.

"It should appeal to multi-site organisations such as retail chains where centrex can give the company a single telephone number with the shops as extensions," Mr Barry Hannam, sales and marketing director of Telephone Rentals. He thinks that centrex will improve awareness of other products, such as programmable phones and new PABX features.

These extras are vital in a market selling otherwise similar products. Voice mail can now be bought with the PABX. It allows users to leave verbal message for other extensions, like a centralised answering machine. British Telecom runs a public version called Voicebank, but customers pay for using it.

The future for voice mail is uncertain, however. The US experience is not promising as it has to compete with the ordinary answering machine. Similar services are about to become available as simple add-on to office computers including the IBM PC.

Plessey has sold only a "modest number" of the voice mail optional extra on top end PABXs. Telephone Rentals' experience is similar—"voice mail sales are flat," says Mr Hannam.

Some extras do help. Pocket pagers can now be operated from PABXs. Users may dial someone's extension and, if they are not there, their pager bleeps.

Automatic call distribution, where incoming calls go to free phones in sequence and managers keep track of how long a caller waits before the call is answered, is selling to mail order and insurance quotation companies. Automatic call-forwarding has to be run on a PABX or from mobile phones because it is usually not available on the public phone network.

But the PABX-makers are struggling against the tide. Although the latest PABXs use digital technology, that does not make much difference while the telephone network itself uses pre-war parts. Both Mercury and BT are putting digital links into only a small proportion of UK premises and most market forecasts suggest that PABX sales around the world will not begin to take off until 1989.

Around that time, widespread trials of the integrated services digital network (ISDN) will start—the current British Telecom pilot project is called IDA and has a handful of subscribers. ISDN will carry voice, data text and images on one line from the office, and most developed countries plan to build ISDN as a publicly accessible service.

It is already possible to simulate ISDN on leased lines with some PABXs. But the ISDN standards have not yet been finalised, and buyers risk ending-up using standards which no one else has bought.

In the meantime, the deregulation of telecommunications and uncertainty about the ISDN standards which will eventually be adopted is pushing customers away from in-house services to bureaux. During the 1970s "electronic mail" meant a company-wide service, operated in-house. Now there are 50,000 mailboxes allocated in Telecom Gold alone, and there are at least three serious rivals chasing in its wake.

Danny Green

Office Automation

Stronger emphasis now on integrated systems

THE "electronic office," the ultimate in office automation, continues to advance, though hardly in the way or at the pace the pioneers predicted. They had expected developments to turn around the multifunction workstation, a low-cost device incorporating telephone, printing device to replace the typewriter, computer and electronic memory to replace paper files.

Cost and technological inertia precluded that. Instead, office automation has proceeded in a much more piecemeal fashion.

The single most important factor has been the advent of the professional personal computer and its adoption as the *de facto* workstation.

According to Mr Michael Swavely, vice president, marketing, for Compaq Computer Corporation, more than half the office workers in the developed world will have the use of a personal computing resource by 1995.

Speaking at a recent Financial Times conference he argued that communications was the key to realising the potential of the personal computer in the office.

"The personal computer has already become the basic building block in office automation and information processing," he said. "When tied together via a variety of communications approaches, personal computers can move beyond individual productivity applications and deliver true workgroup productivity solutions as well."

It only takes a glance at the spectacular, and somewhat unexpected, resurgence in the fortunes of the Digital Equipment Corporation, to realise that the large corporation offices are ready for these developments.

DEC is riding high on a wave of enthusiasm for "integrated office solutions" and "distributed processing," the ability to tie together simply and cheaply all the computers needed to run an office environment into powerful data networks.

Put simply, the modern corporation needed three levels of computer power to run its business.

First of all, it needs its traditional data centre equipped with mainframe computers to act as a reservoir of computing power and to act as guardian of the company's information.

Second, it needs smaller machines at the departmental level to provide local power and data storage. And third, it needs personal computers on the desks of its executives.

DEC was particularly well placed to exploit these trends in systems development because all its computers from its largest VAX superminis down to its desktop computers shared a common architecture, or machine design.

In consequence, it proved relatively easy for DEC customers to implement modern office automation strategies. Their computers were easy to connect to each other and their common architecture meant that they could work together as a single computing unit.

Furthermore, the concept of tying together a number of high-powered VAX minicomputers to replace conventional mainframe computers in the data centre is gaining credibility.

DEC had been gaining at the expense of IBM, saddled with half a dozen separate and incompatible families of machine design and no clear and simple blueprints for office automation.

Earlier this year, in what many observers believed was its most important product launch it introduced its System/360 mainframes in 1964, IBM struck back.

It announced a family of machines designed to operate at departmental, or office, computers, identical in architecture to its large mainframes.

In other words, it had ensured compatibility between its data centre machines and its office minicomputers. Customers had not been too enthusiastic about IBM's previous solution—to link personal computers to a System/36 minicomputer and connect that in turn to the mainframe.

According to Mr Stephen Smith, computer industry analyst with the New York stockbrokers Paine Webber: "Customers loyal to IBM have been waiting (impatiently) for an acceptable departmental solution."

All but one of the customers we surveyed are dissatisfied with the System/36; it is too small and IBM seems unable to increase its capacity quickly enough.

Mr Smith argues that the new machine range, which IBM calls the 9370 family, seems to be exactly what these customers need: "Several of these customers are attempting to create a world-wide PROFS electronic mail network and stated that the new machine would be the ideal PROFS node internationally."

PROFS, IBM's professional office system, is a key part of IBM's emerging office automation strategy. It is designed to help managers, professionals, secretaries and support staff in the creation and communication of work information. It allows office functions to be performed on the same terminals used interactively for problem solving.

So the 9370 family is likely to have substantial impact on the office automation market. The impact will be offset to some extent by the fact that the new machines will not be shipped until the third quarter of 1987.

The question of how best to connect together all the devices which comprise the electronic office remains open. DEC is firmly committed to Ethernet, the first and best developed of the *local area network (LAN)* products. IBM, on the other hand, has introduced its own "token-passing ring," another variation on the LAN theme.

LANs are important because they allow computers and computer-based devices to be connected together cheaply and reliably within a small area—typically a building or an office complex.

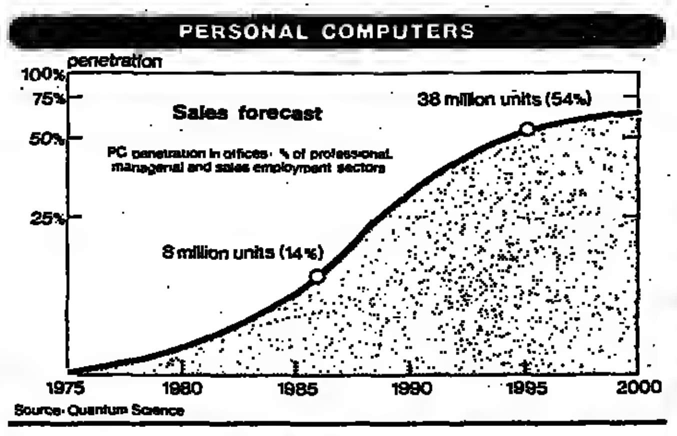
Conventional computer cabling is expensive, difficult to weave through even the most modern building and boosters have to be used very so often.

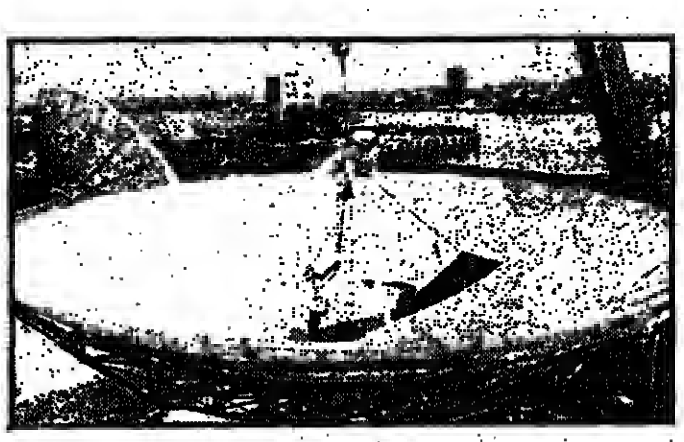
LANS use sophisticated communications techniques to overcome these problems. They can be used to connect computers, printers, facsimile devices (a fast-growing area of office communications), electronic data stores—and they promise the effective integration of voice, data, image and text over the same network.

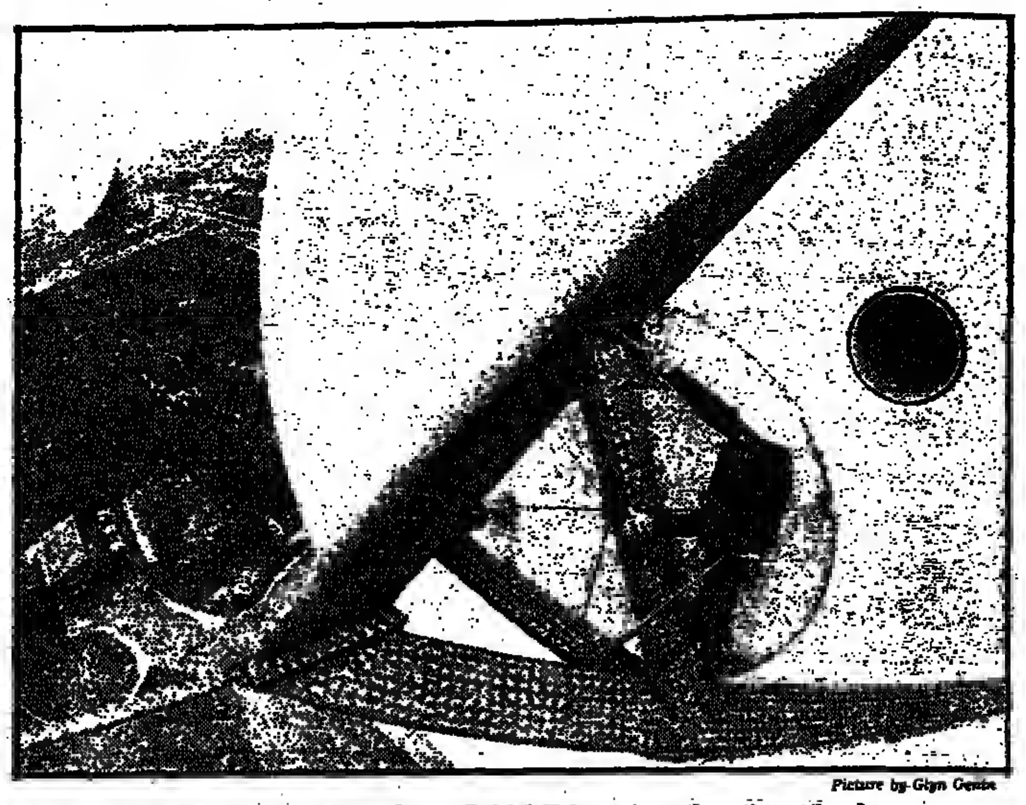
In 1995, according to Mr Swavely of Compaq, the multifunction workstation predicted by the pioneers will be a reality.

Alan Cane

PERSONAL COMPUTERS







Picture by Glyn Genin

Giant dish aerial installations: left, at British Telecom's earth station at London Docklands; and (above) at the earth station at Madley, near Hereford

Developing the Infrastructure

Era of optic cable and satellites

WE ARE in the age of information technology where there is an ever increasing demand for more circuits so that more telephone conversations can be held simultaneously and growing amounts of information in other forms—such as data, text and video—can be transported from place to place.

The need is therefore to increase both the number of paths and their capacity. As this trend will continue to grow for the foreseeable future, especially with the move towards the integrated services digital network (ISDN), the telecommunications carriers around the world are investing heavily in order to meet anticipated demand.

Satellites and cables are both competitive and complementary means used for long distance communications on a point-to-point or point-to-multipoint basis. They do have the disadvantage that signals take half-second or so to reach their destination due to having to travel the double 22,000 mile path between the earth and satellite.

This delay is rather disconcerting in a telephone conversation. Nevertheless, they are a widely used medium and are particularly valuable in areas where it would otherwise be necessary for cables to traverse inhospitable terrain or where there are a number of separate destinations, each of which could not justify the installation of a cable.

Small dish satellite ground stations can also be set up quite rapidly to bring services to the end-user—valuable where no suitable cables are installed and the wait for them would be too long. A good example of this occurred in France where, following the launch of the Telecom 1 satellite at the end of 1984, transportable satellite ground stations were brought into service so that the advanced digital satellite services could be accessed from any part of the country.

To meet growing needs for telecommunications capacity, Intelsat (the international telecommunications satellite co-operative) and Eutelsat, a consortium of the PTTs of the major European nations, and a number of other organisations around the world are continuing with their satellite systems which, in addition to telecommunications, will be used for TV broadcasting.

There has to be a continual satellite replacement programme. This is because satellites only have a limited in-orbit life as they can only carry a limited amount of the fuel needed to keep them in the correct position and attitude (ie pointing in the right direction) in space.

No matter how useful these satellites become, the greater proportion of transmission will continue to be carried via cable—both terrestrial and submarine.

The performance provided by modern optical cable systems is such that a single fibre less than 0.1mm (one-tenth of a millimetre) in diameter can carry 2,000 or more simultaneous conversations with regenerators to reamplify the signal only being needed every 30km. This compares with previous generation coaxial cable systems in which the cable is about 10mm in diameter and the repeater spacing is typically 4.5km.

On land, the small physical size of fibres enables additional cables to be installed in existing ducts which would not have been able to accommodate further coaxial cables. This enables the available capacity to be increased rapidly and easily to meet demands.

Similarly, the cost of installing the ductwork on new routes is far lower both due to the size of duct and the lower number of access points required for the installation of regenerators.

The world's first international submarine optical cable, running between the UK and Belgium, was recently inaugurated. It added a further 11,500 telephone circuits to the 23,000 circuits already provided by the 12 cables that span the North Sea.

TAT-8, the first transatlantic optical cable, being funded by a consortium of the major PTTs around the world, is scheduled to come into service in 1988. It will be shortly followed by PTAT-1, the first privately funded transatlantic optical cable in which Cable and Wireless is the prime mover.

BT is offering discounts on forward contracts placed for TAT-8 capacity, aimed at drawing potential business away from PTAT. It cannot really be because it does not expect the market to be able to support both cables because, even with all this increasing capacity in the pipeline, initial discussions have already started with respect to the next PTT-owned cable, TAT-9.

While the domestic subscriber and the small business with just a few lines will probably long continue to be connected to the public exchange via wire copper "twisted pairs," fibre optics will be increasingly used to connect PABXs on customer premises to both the public switched telephone network (PSTN) and to other portions of private networks.

Initially, these fibre links will operate at 2Mbit/s (equivalent to 30 telephone channels) but will have the ability to be upgraded to 8Mbit/s and beyond as demand increases. As it will not be necessary to replace the fibre cable itself when carrying out this upgrade, costs and time will be kept to a minimum.

In the longer term, the telecommunication administration are looking towards broadband ISDN which will provide subscribers with about one thousand times the bandwidth of ordinary (or narrowband) ISDN and so allow them to provide picturephone and other future facilities.

A view expressed by Dr Charles Kao, one of the key figures in the development of fibre optics, was that whenever subscribers have been provided with an increased amount of capacity they have always found good uses for it—even if it was impossible to know what initially these uses would be.

If this is the case, it is to be expected that the information age will continue to be hungry for transmission capacity for many years to come. In the same way that a country's GDP is frequently correlated with its telephones per 1,000 of the population, a more true measure in the future might be the available transmission bandwidth in megabits per head of population.

Adrian Morant

The Standards Issue

Crucial to good order

STANDARDS are to datacommunications as laws are to society; hardly the stuff to make the adrenalin flow but crucial to good order all the same.

And just as influence of a new law on society inevitably reflects its authorship, so a company which sets a computing or communications standard achieves a commercial advantage which can be devastating.

Take, for example, the US software house Digital Research which swept all before it when it pioneered the first operating (control) software for personal computers in the late 1970s.

When IBM launched its best-selling personal computer in the early 1980s, it used an operating system *PC/DOS* built by another software house, Microsoft.

Microsoft inevitably and *rapidly* became the leader in the personal computer operating software league and has remained so.

All of which explains the worldwide concern about moves to establish standards in the interconnection of computer systems.

A world standard has been proposed by consensus in the International Standards Organisation. This is called Open Systems Interconnect or OSI.

The aim is to define every element of the connection process between computer systems so that any device or network obeying the rules can be connected to any other system obeying the same rules.

The problem is that the definition of these rules, mundane though they may be, is an exacting process. The OSI standard will eventually define seven separate "layers" (sets of rules dealing with specific discrete areas of connection) and only the lower four of these have been completely defined.

Meanwhile, companies worldwide are anxious to move quickly to develop their own telecommunications and data communications networks.

In the meantime, each computer manufacturer has developed its own interconnection standard—Digital Equipment has DECNET, Burroughs (now Unisys) has Burroughs Network Architecture and so on.

IBM, with over 60 per cent of the world mainframe market, is in a powerful position to set a *de facto* standard with its completely defined networking rules SNA—Systems Network Architecture.

It is important to understand that although OSI and SNA are the most important designs for the interconnection of dissimilar computer systems, they are not directly comparable.

SNA is a set of rules which describes how to connect computers together in an IBM network—it does this best when the computers are IBM's own machines.

OSI, on the other hand, is concerned with the connection of dissimilar computer systems—IBM to ICL, Honeywell to Unisys and so on.

Many large companies, in implementing data communications networks, are using SNA for the simple reason that their data processing is based on IBM computers and SNA is now tried and tested over a period of years.

There is, therefore, considerable cause for worry that IBM could set the standard in computer-to-computer communication by default. That would give it a competitive edge which it would be very difficult for other companies to overcome.

System specifications are never static; planning to meet these specifications is akin to firing at a moving target. If IBM was allowed to establish SNA as the interconnect standard, it would always have the advantages of knowing what changes were next in the pipeline.

This is why many of IBM's competitors have put aside their own networking ideas to concentrate on a united front based on OSI. In the US there is the Corporation for Open Systems. Similar plans have been put forward in Europe by companies such as ICL of the UK, Siemens of West Germany, Olivetti of Italy and Bull of France.

A major aims now is the establishment of conformance testing centres—laboratories equipped to test devices and systems to check that they really do conform to the rules laid down by ISO for OSI.

The picture is given added depth and complexity by the fact that IBM has contributed from the first to the definition of the OSI standard and, in fact, operates the largest OSI conformance testing laboratory in Europe.

It has consistently argued that it will respect OSI conventions for the connection of dissimilar systems but that it will not give up its own investment in SNA in favour of OSI within its own networks.

What is remarkable about the whole standards debate is that for the first time the argument is being driven by the customers for systems rather than their manufacturers.

In the manufacturing arena, the introduction of computer integration in the factory has been given significant impetus by the demand from General Motors that all *its* suppliers obey a version of OSI suited to manufacturing called MAP or manufacturing automation protocol.

Meanwhile, the "electronic office" has been boosted by the complete definition for the first time of a set of rules in the topmost layer of the OSI seven layer model.

These refer to the handling, switching and delivery of electronic messages and are called X.400 series.

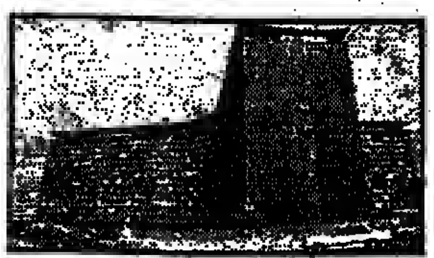
In telephone networks, digital (computer language) switching and transmission will give rise eventually to Integrated Services Digital Networks (ISDNs) digital in character from end to end.

During the change from the traditional telephone networks through Integrated Digital Networks like the UK's System X to full ISDN, there will be a powerful need for standards to allow services on traditional networks and those on ISDNs to work together.

These "interworking" standards are the subject of a new set of recommendations now being prepared by the international telecommunications regulatory body, CCITT.

Alan Cane

Spain



Accession to the EEC has given Spain an important psychological boost. The size of the challenge is only now beginning to be recognised however by the manufacturing industry

The taboos start to lift

By David White

THE SPANISH wanted almost unanimously to join the EEC—and they are glad and relieved to have made it. But most of them have forgotten why. Ordinary Spaniards, who up to accession were more aware of the obstacles to entry than the realities of the Community, would be hard put to point to any real changes since January other than value-added tax.

But those feeling the most direct effects, the manufacturers, are starting to realise the size of the challenge taken on.

The impact of entry for Spain is mainly psychological, but is by no means a negligible one. Achieving membership was the political equivalent of a doctor's certificate—a sign of acceptance and recognition of Spain as a "normal" country. It is no longer a nation with a chip on its shoulder.

Membership has also brought a sense of completion for the transition to democracy. It is remarkable to think that four or five years ago *coups d'etat* were still in the air and newspapers were bravely publishing editorials in defence of the constitution. Spain today is at last getting over its taboos: television is launching its first full series on the civil war of 50 years ago. The occasional reappearances of fascist Spain, such as the annual demonstration a few days ago in memory of General Franco, have little significance—a curiosity like the persistence of unusual eating hours.

Spain has now come fully into the mainstream of the western community. Less than three months after becoming an EEC member it voted to stay in Nato (albeit with some reluctance and at the cost of a tough argument with the US over the future of American bases). It would probably have become part of the IMF group of 10 if there were not already 11 in the group. It will almost certainly join the European Monetary System once inflation is down to an average EEC level, possibly in 1988.

Problems with neighbouring countries have been smoothed. Fearful of fresh tension with Paris after the Chirac Government's arrival in power, the Spanish have been taken aback by how well relations with France have evolved.

French authorities are co-operating more than ever before in the crackdown on Basque terrorism. A fishing dispute in the Bay of Biscay was resolved when France conceded rights to the Spanish. In exchange, Spain has not taken up cudgels over the EEC's policy towards non-member Mediterranean states.

King Juan Carlos's visit to the UK in April was a resounding success, even though talks on Gibraltar, initiated two years ago, are bogged down.

Commercially, Spain has turned even more towards Europe. In the first nine months of this year its share of exports going to the rest of the Community rose to 60 per cent from 53 per cent a year earlier, and the EEC's slice of Spain's import market rose to 48 per cent from 36 per cent. West Germany has supplanted the US as Spain's biggest supplier.

Though not dramatic, changes are beginning to filter through. Items that before had rarity value, from Weetabix breakfast cereal to Alfa Romeo cars, have become commonly available. EEC standards will progressively be applied in areas like hygiene in abattoirs and environmental protection. Helped by EEC funds, Spain is preparing to tackle phenomena such as African swine fever, which prevents it from selling pork products in Europe and is embarrassingly suggestive of the Third World.

Old fears which led Spain to put up barriers—being overrun or drained of resources—have been surmounted. The Government has lifted most of the remaining restrictions on foreign investment and, more recently, opened the door for Spaniards to invest in shares abroad. This is a big sign of confidence.

The moderate Socialist Government of Mr Felipe Gonzalez, re-elected in June, sits firmly in the seat of power, undeterred by seeing Socialist parties toppled in both of Spain's immediate neighbours, France and Portugal, and able to hold the vote of the left while pursuing policies (including some privatisation) that have little to do with Socialist dogma.

A blot on this exterior of almost smug normality is the Basque problem, not only because of continuing terrorism, but also because of the failure of the inhabitants of the Basque country to find common ground on the kind of political model they want. Another is unemployment, affecting more than 21 per cent of the "active" population.

Even if a third of the 3m unemployed are working in undeclared jobs, as the Government reckons, the figure is still well above average EEC levels. With more people, especially women, coming onto the jobs market, the figure is not likely to come down, even though the authorities expect the number in employment to continue increasing, as it has since last year.

The outlook is for growth above EEC averages in the next few years although there are some doubts about the Government reaching its 3 per cent target for this year. Inflation has caused bouts of anxiety but is expected to end the year only slightly above target at 9 per cent, including the effects of VAT. Prospects appear good for a renewed labour consensus with the Socialist UGT trade union, based on declining inflation.

In this sense, entry has been smoother than anticipated. But for much of manufacturing industry, joining the EEC has been like passing a medical for military service: it did not try to get off because of flat feet or rheumatic complaints, but is now going to have to get up at the crack of dawn and go on forced marches.

Spain has shown itself highly competitive in services—with a big rise in tourist revenue it can expect to consolidate its current account surplus this year. But it is much less so in industrial goods. The divergence in inflation trends with the rest of the EEC, a stronger peseta and a gap in productivity often reaching 25 per cent have all taken their toll. Although investment is recovering, industry is now feeling the lack of it in recent years.

With no more tax benefits for exporters, and with tariff defences starting to come down, Spanish manufacturers have been losing ground at home and abroad. Exports in peseta terms are 6 per cent down so far this year. Imports have also dropped because of slashed oil prices, but by less, and non-energy imports have risen in volume by about 20 per cent.

Spain's non-energy trade balance has swung into the red. In a bad, drought-hit year for cereal crops, the farm sector has not offset the negative effects of EEC membership on the industrial balance.

Since the first tariff cuts in March, Spain's one-time surplus against the EEC has been wiped out. In the first nine months its sales to the rest of the Community rose by only 6 per cent against a 25 rise in imports. In October its trade with France dropped into deficit. The Government has already had to invoke safeguard clauses, notably for steel products.

The Socialists' $7bn streamlining plan for problem industries including steel, shipbuilding, textiles and electrical "white" goods, has been largely completed. But as the four-year "reconversion" programme comes to an end, the need is emerging for more state-aided surgery. Once again this is for steel, for some engineering sectors, and (most painfully since it will hit Asturias, traditional heartland of the Left) for the uneconomical state-owned coal-mines.

Abroad, Spain is handicapped by weak and inexpert marketing. While in some areas it has demonstrated a capability for high-quality workmanship (and the Government has started campaigning to improve quality standards) it has been generally bad at selling itself. It was not the greatest inspiration, for instance, when a company was set up in the US to market Spanish defence equipment to call it Defex.

This year, however, has produced at least one outstanding success for Spanish salesmanship, with the clinching of the 1992 Summer Olympics for Barcelona against strong competition. The Games and the universal exhibition planned in Seville the same year for the 500th anniversary of Columbus's first discoveries will mobilise investments of several billion dollars.

The events coincide with the last year of Spain's industrial transition period with the EEC, and industries such as telecommunications hope to use them as leverage to make a "qualitative leap" into the European front rank.

The bulk of a $15bn investment plan for Spain's railways is due to be completed by then. Madrid, once one of Europe's most poorly connected capitals, will be accessible by a new dual-carriageway road network. And, five centuries after Spain's conquest over Moorish occupation, the south will at last be physically linked to Europe.

It may have to do with the new horizons opened since joining the EEC, or with the end of an industrial crisis that came later and cut deeper than in the rest of Europe. But a noticeable change has come about in the way Spain has started to think big.

A jubilant Felipe Gonzalez, re-elected as Prime Minister, is firmly in the seat of power

Contents

Politics

Gonzalez is firmly in the saddle

FELIPE GONZALEZ is a much more relaxed man than he was nine months ago. Then, in his campaign for a referendum vote in favour of staying in the Nato alliance, which he had opposed joining just four years previously, he had reasons to be tense. Caught up in a tangle of his own creation, his future as Prime Minister was in some doubt.

The referendum over (won in the end more easily than he expected, by a margin of 53 per cent for, 40 per cent against), confirmed in office for a second four-year term in the general election in June, Mr Gonzalez is now firmly settled in power.

Nobody at the beginning of Spain's transition to democracy after the end of the Franco era in 1975 could have foreseen the Socialist Party—which last got a taste of power in the unruly pre-civil war years—being so safely installed.

Are they there to stay for decades, Swedish-style? Or will they burn themselves out?

In the general election the party kept an outright majority in Congress but lost 18 of its previous 202 seats and a large part of its hold on urban middle-class voters. Its leaders are worried about next June's municipal elections, when socialist mayors in several big towns including Madrid face a tough battle.

The source of the Socialist Party's strength—its broad appeal, breaking the mould of left-right confrontation—is also its problem in deciding who it is aiming to please. It came to power in unique circumstances. It's predecessor, the centre-right UCD, which four years ago was in the process of handing over the reins, had collapsed utterly and has since disappeared from the scene.

With the Right reluctant to budge towards the Centre, the Centre in disarray, and the Communists in the throes of their own spectacle of division and collapse (which they managed to repair a little this year), the Socialists were left with a vacuum to fill.

As Mr Jordi Sole Tura, communist law dean in Barcelona, and one of the architects of the 1978 constitution, put it: "The PSOE (Socialist Party) has found itself in the singular situation of having to be simultaneously a party of the moderate right, of the Centre and of the Left, because all the other parties that should occupy these positions have been through, or are going through, or will go through, grave internal crises."

A young socialist team, many still in their thirties, come to office in 1982 without the ideological baggage of the old anti-clerical, anti-militarist, pro-Republican party, but also without much experience. In their second term, praised by representatives of the conservative business establishment for greater signs of realism, the Socialists have appeared if anything more moderate.

The Nato debate was symptomatic of the ditching of demands made while in opposition. Mr Felipe Gonzalez suffered some damage to his considerable popular image in the process of a rather heavy-handed campaign, and is now accused of backtracking on his pledge to keep Spain outside Nato's military sructure.

This year's rambling election programme contrasted starkly with the "100 points" the socialists were proposing in 1982, starting with the creation of 800,000 new jobs. "We were guided," the 1986 programme admitted, more by our political will than by the possibilities then offered by economic reality."

However, the conflict between the party's sense of trade union-based political identity and the economic orthodoxy of its technocrats is still very much alive. It was crudely summed up in a verbal skirmish this summer between Mr Alfonso Guerra, the deputy prime minister and chief socialist election strategist, and Mr Miguel Boyer, ex-finance minister, who spoke out for greater liberalisation of the economy.

Miguel Boyer, ex-finance minister (left), and Alfonso Guerra, deputy prime minister: a verbal skirmish between them.

Both have long been close to Mr Gonzalez. The one poured scorn on "frustrated politicians who are no longer in politics," the other against "pseudo-leftist demagoguery."

This squabble has, however, served to eclipse the real left of the Socialist Party, to which Mr Guerra does not belong, and which has become increasingly demoralised. This faction, Izquierda Socialista, is meeting over the next few days to consider whether to continue as a movement or throw in the towel.

The party has become a victim of its own success. With local bosses setting up strong bases in the autonomous regions, power rivalries have taken the place of ideological discussions.

Mr Gonzalez has himself become worried about the party's "dangerous trend towards becoming an oligarchy," as he told a socialist summer-school this year. He called for a "dialogue" to forge new ideas.

"I have to recognise that the model of socialism we will be able to offer in the 1990s is not defined," he said.

To the right of the Socialists, the opposition is also looking towards 1990 and the unresolved question of what party or coalition could provide a credible alternative to the socialists.

The business establishment's dilemma over its political choices became evident in the Nato campaign, when the big banks parted company with Mr Manuel Fraga, leader of the main right-wing party Alianza Popular, who had called on his supporters to abstain.

Mr Fraga's position also got him into trouble with other European conservative parties, and exacerbated growing tensions among his chief disciples.

The right's problem is that the 64-year-old Mr Fraga is its best vote-pulling asset but at the same time its biggest liability in attempting to win more support. There is no obvious substitute who could hope to keep Mr Fraga's votes and at the same time win over the large sector of centre-right opinion that would never consider voting for Mr Fraga.

Regarded as a liberaliser when he served under the Franco regime, Mr Fraga is described by one conservative regional politician as "biologically dictatorial."

In June, a three-party coalition led by Mr Fraga kept all but one of its previous 106 seats. As a result of the alliance, the Christian Democrat PDP party—"moss on the trunk of Mr Fraga," according to the same politician quoted earlier—got 21 of its members into Congress. Expressing dissatisfaction over the result, it then pulled them out of the opposition coalition.

Meanwhile, rumblings within Alianza Popular itself over the high-handed running of the party grew louder. In September, Mr Fraga sacked Mr Jorge Verstrynge, the party's 38-year-old secretary-general, a one-time protégé and heir apparent.

He had put Mr Fraga's name forward as candidate to the mayor of Madrid. Mr Fraga obviously saw it as an attempt to put him out to pasture. The offending dauphin then noisily left the party with three other members of parliament. Mr Fraga's seats were down to 80.

To rub salt in the wound, there followed a crisis in the Alianza Popular Government in Galicia, the north-western region which is Fraga's home ground.

While rumours abound, Mr Fraga is still fighting, denying there is any crisis and refusing to let the party "lie fallow for any opportunist."

A new alternative centre-right formation, the Democratic Reformist Party (PRD), launched by Mr Miquel Roca, a leading Catalan nationalist politician, proved to be an unprecedented fiasco. It drew in support from such figures as Mr Valery Giscard d'Estaing and Mr David Steel and Pta 600m in bank loans. But it got no seats. One went to an allied party in Galicia, but that party has since quarrelled and split in two.

Mr Adolfo Suarez, the former prime minister, who made a triumphant comeback with his CDS party in June, meanwhile remains something of an enigma. His long periods of silence succeed in making a contrast with the noise of scuffling going on in other parties. But, with 19 seats in Congress, the CDS is very much a one-man show, a curious combination of progressive-left and centre-right.

Bigger worries for the Socialists come from Catalonia and the Basque country, where the divide is not just between Left and Right but also between regionalist and national parties. Both have up to now had centre-right governing parties, but both regions voted "no" in the Nato referendum to spite Madrid.

In Catalonia, where the Left had a clear majority in the first years of the transition, they have lost ground, even though they come first there in national elections.

In the Basque country, where the situation is more radical and a large part of the population favours more complete home rule, the Socialists have found it even more difficult to gain credibility outside the immigrant worker population.

David White

Relations with US

Anxiety on both sides

THAT PERCEPTIONS are sometimes as important as realities in international relations may by now be commonplace, but nowhere is it more apt than in the complex and often uneasy relationship between Spain and the US.

Spain itself is numerically not well represented among the ethnic minorities of the US even if Spanish speakers from former Spanish colonies are; there is no Spanish lobby as there are Irish, Greek or Israeli interest groups working on behalf of their kinfolk. Moreover, while other European nations were either allied to, or liberated by the Americans, Spain's neutrality in both World Wars precluded the development of the reservoir of popular goodwill to America evident elsewhere.

Indeed, a post-war generation of Spaniards grew up perceiving the US as preeminently the power that had underpinned the Franco regime, and confirmed it in power in 1953 by signing the bilateral defence pact which gave the US access to Spanish bases. Since Franco's demise both left-wing and traditional nationalist elements have sporadically opposed US policies, especially in Latin America.

Anti-Americanism, as well as traditional Spanish neutralism, surfaced sharply during President Reagan's visit to Spain last year, and again during the campaign leading to the referendum in March this year on Spain's continuing membership of Nato. Had the country voted to leave the alliance, it would paradoxically have been thrown back into its solitary embrace with the US, from which it had emerged on joining Nato in 1982.

The narrow (52 per cent) vote for membership was a considerable relief not only to Washington and other Nato capitals, but to Spain's Socialist Prime Minister, Mr Felipe Gonzalez, who had been forced into the referendum to assuage strong anti-Nato sentiment within the party.

But his triumph was far from complete. In order to win over Nato-doubters he had been forced to promise to negotiate a reduction in the US military presence in Spain, to keep Spain out of the alliance's integrated military command structure, and continue denying the US the right to deploy nuclear weapons on Spanish territory.

Under the first heading the most recent US-Spanish agreement, signed in 1982, already circumscribes US use of the four main bases (Rota, Torrejon, Zaragoza and Moron), but since it also provides for $400m of military credits per annum, there is little likelihood of a drastic diminution in the US presence.

Nevertheless, critical public opinion cannot be ignored. Last December, Mr Gonzalez warned the US administration that they would have to accept some run-down to the American military presence if he was to have a chance of winning the coming Nato referendum. Accordingly,

Reginald Bartholomew, the new US ambassador to Spain, leads the negotiating delegation about US bases.

Continued on Page 3

Economy

Moves towards greater liberalisation

THE HEALTH of the economy is mixed. The balance of payments is in good shape, foreign exchange reserves stand at a record level of over $17bn, and investment is up 7.5 per cent this year.

But unemployment—the highest in Europe as a proportion of the available workforce—remains intractable at between 21 and 22 per cent. Inflation is also well above the European average and shows signs of rising further, while the public deficit remains a powerful constraint on growth.

Spain's economic performance this year has been influenced first and foremost by the initial impact of joining the European Economic Community, along with its neighbour Portugal, on January 1. This has provided the expected stimulus to foreign investment in Spain but it has also added to inflation through the advent of Value Added Tax, which it was necessary to adopt as a condition of entry.

More ominously, perhaps, EEC entry has turned Spain's former trade surplus with the Community into a sizeable and growing deficit. While the lowering of high Spanish tariffs has greatly eased access for imports this upsurge has not been balanced by anything like a concomitant in exports.

More favourable factors influencing performance include a steady improvement in domestic demand and, crucially, lower oil prices, which have helped to contain inflation and the public deficit and encouraged the Government to revise its growth target from 2.5 to 3 per cent.

The Government's aim this year was to stimulate a modest economic recovery that would reduce unemployment without veering from the objectives of its stabilisation programme. Accordingly, the disturbingly high public deficit was targeted to fall to 4.5 per cent of Gross National Product and inflation to fall to 8 per cent by the end of the year—despite the negative impact of VAT.

For money supply the growth target was reduced from 13 to 11 per cent, but the Government was resigned to wages rising slightly more than last year in line with expected cost-of-living rises.

How far have these objectives been met? By the end of August the public deficit was 18 per cent lower than in the same period in 1985, due mainly to the savings from cheaper oil and increased revenues from VAT. The deficit has been keeping interest rates high, hampering investment and job creation. The latest trends of public sector horrowing, however, make it far from certain that the end-of-year target of 4.5 per cent of GDP will be met.

The Government hopes to reduce the deficit oext year to 4 per cent of GDP, but it is likely to be constrained by the high spending of some state enterprises and the continning large outlays on social security.

Another major goverment priority, curbing inflation, has been adversely affected not only by the introduction of VAT but by an unexpectedly sharp rise (13.4 per cent) in food prices. By the end of October the year-on-year inflation rate was running at 9.5 per cent, after jnmping 1.1 per cent in September alone.

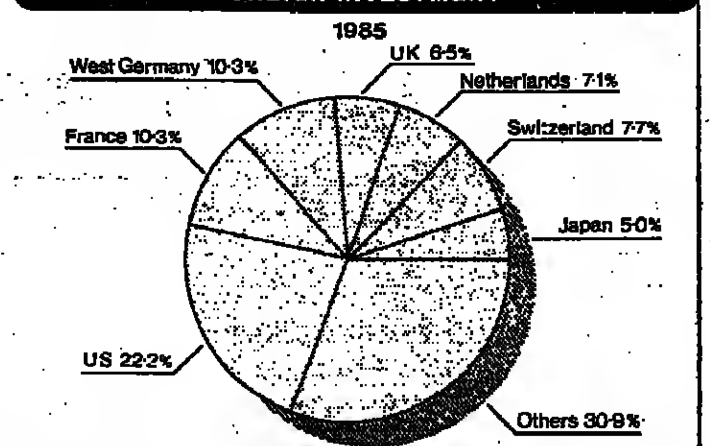
The Economy Minister, Mr Carlos Solchaga, has rejected food price controls; instead he has liberalised a number of agricultural imports in an effort to bring down costs and prices.

Meanwhile, the all-important inflation disparity between Spain and its EEC partners has widened alarmingly, reducing the competitiveness of Spanish exports and the chances of stemming the deepening trade deficit with the rest of the Community. The EEC takes over 60 per cent of Spain's exports and provides almost half its imports.

The peseta has generally held fairly steady against other EEC currencies this year, but given the faster growth of Spanish costs and prices it has appreciated in value in real terms.

Some economists foresee the Government effecting a managed depreciation of the peseta early next year through Central Bank selling, but that would have to be contingent on lower inflation in the meantime. The business lobby, the CEOE, nevertheless feels strongly that the healthy balance of payments, particularly in invisibles and on capital account, gives hope for some devaluation which, they say, would greatly boost export competitiveness.

But the Government remains committed to a stable exchange rate. For the Secretary of State for the Economy, Mr Miguel Angel Fernandez Ordonez, it is an essential element in the anti-inflation programme, together with the removal of protectionist barriers and, crucially, the control of wages through an agreement with the unions.



The Government has, however, had to revise its 1987 inflation-reduction target from 4 to 5 per cent, to gain union backing for its inflation-linked wage moderation plan. The unions regarded 4 per cent as unrealistic. Even so, the Government optimistically expects to see inflation down, by 1988, to around the present European level of 3 per cent.

If it succeeds, says Mr Fernandez Ordonez, Spain would then consider joining the European Monetary System.

The closely-related exercise of controlling the money supply has met with marginally more success. After rising in the first part of the year, by early September it was within the 11 per cent growth target as a result of the Government's tighter interest rate policy.

Improved money supply figures, and the stable outlook then led to a slight fall in interbank interest rates, but in October public sector financing needs once again boosted the money supply, taking it slightly over target. Private sector demand for credit remains relatively weak, however, and the Central Bank does not expect interest rates to rise in the immediate future. The Government is aiming to bring money supply growth down to 8 per cent next year.

The expansionary effect which the substantial inflow of funds from Spain's payments surplus might have had on the authorities' monetary control calculations has been largely offset by early repayment of foreign loans. Total private and public sector debt fell from its 1984 peak of almost $31bn to $26bn by September and the authorities hope to see it fall to $24bn by the year end.

Similarly, the strong inflow of investment funds from abroad, attracted partly by a booming stock market, has also led the authorities to take countervailing measures. To bead off excessive domestic monetary growth, the Government is now allowing Spanish residents to huy sbares on foreign stock markets.

Although Spain has until 1990 to adopt EEC rules on the free circulation of capital, the Government is moving prematurely because it also fears the uncompetitive effects of a stronger peseta that would result from excessive capital inflows.

On the wages front, negotiated settlements had led to a general rise of around 8 per cent by September, slightly higher—as expected—than last year. The trend is expected to continue to the end of the year.

Domestic demand, from both consumption and investment, remains the main stimulus to growth, which is now expected to finish up between 2.5 and 3 per cent this year. The economy is being led by lower interest rates, an improvement in corporate profits, foreign investment and a degree of restocking.

But the relative improvement in economic growth is unlikely to make a serious dent in unemployment, which is increasing at a faster rate than last year. Though new jobs are being created the problem remains essentially unsolved. Youth unemployment, in particular, is likely to worsen as the affects of the baby boom of the 1960s make themselves felt.

Labour mobility is not helped by protectionist housing legislation which discourages people from moving to places where jobs may be available but housing costs more. Home ownership is far more widespread in Spain than is generally realised.

Last year the Government introduced liberalised rent contracts in an attempt to loosen some rigidities. Similar moves are being made right across the economy, especially in the labour and capital markets.

Indeed, if the Socialist Government's economic policy has a leitmotiv, it is market liberalisation and deregulation as a means of achieving the flexibility and productive efficiency the country needs if it is to respond successfully to the challenge of European Community membership.

David Rudnick

Basic data

	1981	1982	1983	1984	1985	1986
Real GDP growth (% from previous year)	0.3	1.0	2.5	2.3	2.1	3.0*
Inflation (%)	14.6	14.4	12.2	11.8	8.8	9.3†
Current account balance (US$bn)	−4.989	−4.245	−2.746	+2.008	+3.022	+4.6‡
Exchange rate: Peseta v. US$ (annual average)	92.32	109.86	143.43	160.76	170.04	138.1§
Public deficit as % of GDP	3.0	5.3	5.3	5.0	6.2	4.5*
Investment as % of GDP	20.3	19.7	18.8	20.0	20.3	21.0¶

* Projection. † October. ‡ September. § November 7. ¶ Projectioo based on 3 per cent GDP growth, and investment growth of 7 per cent.

Anxiety felt on both sides

Continued from Page 2

the two governments at length agreed on adjustments "aimed at the phased reduction of the US military presenca in Spain, based on the assumption by the Spanish armed forces of specific reponsihilities and level of security for both countries and their allies."

As a "first step in the fulfilment of its commitment" the US annonnced it was reducing 10 per cent of its military service personnel at the most politically sensitive hase of Torrejon, substituting (mainly Spanisb) civilian personnel. Because of its proximity to Madrid, Torrejon has frequently heen a target for left-wing protest marches. Spanish reaction was that this amonnted to little more than a cosmetic gesture.

So far two rounds of negotiations on US troop reductions have taken place since last Decemher's preliminary accord. While officials decline to reveal any details, it appears that disagreemeot now hinges on the two sides' different interpretations of "reductions."

The US insists that any reduction in its troop levels or installations must be matched by an increased Spanisb role to maintain "the overall capahilities and security for both countries and their allies."

The Spaniards counter by stressing they have no wish to destahilise the overall leval of western security and rebutting the implication that its maintenance depends on their exact substitution of "a plane for a plane, soldier for a soldier."

Modern military technology, they argue, wonld allow the Americans to transfer some of their roles and missions to other allied countries, where the populace has expressed fewer inhihitions about the size of their military presence. (There are about 14,000 US servicemen and dependants in Spain.)

A hroad spectrum of Spanish opinion also thinks the Americans ere osing thair Spanish hases for purposes other than the Nato mission of safeguarding the alliance's southern flank and providing in-depth support for the central froot.

There is widespread suspicion that the bases also serve purely American national interests, particularly in the Middle East wbere Spain has no wish to see her relations compromised by US actions.

The Torrejon air base in particular, with its long runway, offers important staging facilities for big US transport aircraft in the event of a crisis in the eastern Mediterranean. With or without its nse in last April's US air raid on Libya, it was singularly fortuitous for Mr Gonzalez and Nato interests generally that the raid took place just a month after, rather than before the referendnm oo membership.

The US side bas anxieties of its own. The negotiating delegaton ia led by the new ambassador to Madrid, Mr Reginald Bartholomew, wbo successfully negotiated the renewal of US hases in Greece despite the difficulties posed by the premier, Mr Papandreou.

In the present negotiations wlth Spain, Mr Bartholomew will he anxious to avoid creating any precedent which could affect the status of US installations in Greece or Turkey.

On the question of Spain's integratioo or otherwise into Nato's military command structure, the Government has been emharrassed by the disclosure of a confidential memorandum which it snhmitted to alliance beadquarters in Brussels, stating that Spain was ready to negotiate new agreements on military co-ordination and participation in joint Nato planning.

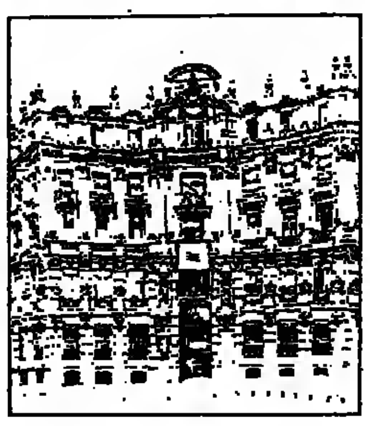
Although the Government has presented its position as modelled on that of France, its proposals would give Spain a much closer relationship with the alliance. Unlike France, Spain is already a member of Nato's military committee, defence planning group and nnclear planning group (NPG), in which latter hody she has upgraded ber representation from amhassadorial to ministerial level.

The Spanish Defence Minister, Mr Narcis Serra, sees no incoosistency in Spain belooging to the NPG while formally eschewing co-operation in the alliance's integrated command structure and refusing to barbour US nnclear weapons. He descrihes the Spanish position as "very similar" to that beld by other Nato powers like Caoada and the Scandinavians.

The US looms large ln Spain's economic life as a trading partner and source of investment. US corporations provide jobs and tha modern management methods wbicb Spain needs to snrvive in the more competitive climate of the European Community.

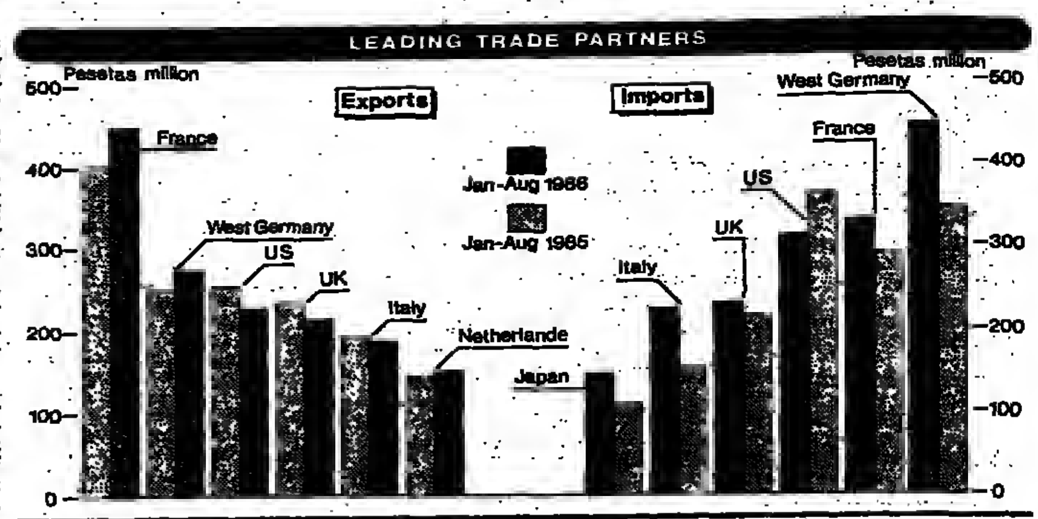
Since joining the EEC and Nato, Spain has gone a long way to regularise its political relatiooship with the US, and place it on a level more akin to that of other western social democracies. Mr Gonzalez osed a revealing metapbor when, in an address to the Trilateral Commission earlier this year, he spoke of Europe as constitutiog "the parliamentary opposition" in the western alliance.

David Rudnick



Trade

Patterns start to change



LESS than a year has elapsed since Spain joined the European Economic Community but already a change in trading patterns is evident.

Imports from within the EEC now represent 48 per cent of the total, compared with 35 per cent last year, while other Community countries take 61 per cent of Spanish exports against 50 per cent last year and when Spain was still on the outside.

Since the first tariff reductions in March, West Germany has supplanted the US as Spain's leading supplier, increasing its sales by a third and its market share by almost half.

Most of Spain's new EEC partners have increased their exports. Portugal's are up by 52 per cent, partly as a result of companies using it as a "back door" for sending products tariff-free to Spain. (Portugal was formerly a member of the European Free Trade Association whereas Spain was not.) UK exports have so far benefited least from Spain's EEC membership.

In the other direction, Spain has increased its exports to most other EEC countries but especially to France, which has extended its lead as Spain's biggest export market. Only the UK and Italy have so far taken fewer Spanish exports than a year ago.

The trade surplus which Spain formerly enjoyed with the EEC disappeared in May, to be replaced by regular monthly deficits. Whereas in the first three quarters of 1985 Spain ran a surplus with the Community of over Pta 200bn in the same period of this year she ran a deficit of nearly Pta 47bn.

Looked at another way, in the first nine months of membership Spanish exports to other EEC countries rose 5.8 per cent, while imports rose 25.8 per cent.

The turnround was widely expected, however. Since Spain already sent half of its exports to the EEC before she entered, and the tariffs on Spanish goods entering the Community were already low (around 3 per cent), there was little prospect of spectacular gains arising from better export conditions.

On the other hand, Spanish producers now find themselves faced with much stiffer import competition as Spain's formerly high tariffs start to come down. Tariff reduction shows signs of bearing especially hard on previously highly-protected sectors like the car industry. The normal tariff was reduced this year from 36.5 per cent to 22.5 per cent as a first step towards its total elimination in six years' time.

Together with substantial quota increases, the change brought a volume increase of almost 60 per cent in imports in the first half of the year alone.

Spain's inability, at least in the short run, to offset the surge in imports with greater access to Community markets could give the trade deficit a long-term character.

Here it must be said that Spain's overall current external account is comfortably in surplus, buoyed up by lower oil and commodity prices, tourist and investment income, and the peseta's rise against the dollar (25 per cent over the past 18 months), in which currency Spain pays for 60-65 per cent of her imports.

The current account registered a surplus of $4.6bn in the first three quarters of this year, 20 per cent up on the same period of last year. The IMF estimates that the surplus could reach $5.5bn for 1986 as a whole.

It may be significant, however, that in the first nine months of this year non-energy imports were 13.9 per cent up on the same period of 1985, while total exports fell 6.3 per cent. The IMF is forecasting a significant fall in the surplus next year, and its disappearance thereafter, because of Spain's deteriorating pattern of trade within the EEC.

The Socialist Government recognises that Spain faces a problem of inadequate competitiveness and productivity in adapting to EEC membership and it rejects "quick fix" solutions like peseta devaluation to solve a long-term problem. Indeed, the Secretary of State for the Economy, Mr Miguel Angel Fernandez Ordinez, regards defence of the peseta, in pursuence of price stability, as a definite policy objective.

The Trade Secretary Mr Luis Velasco expressed a consensus view in seeing the key task as the reduction of the high inflation rate. With Spanish inflation at 9.3 per cent remaining obstinately much higher than in other Community countries the key to boosting export competitiveness is seen to lie in implementing effective anti-inflation measures.

In October the Government announced a series of unscheduled tariff cuts for food imports, notably on the EEC's soft wheat surplus, in an effort to control sharply rising food prices.

The imposition of value added tax, which Spain had to adopt as a condition of EEC entry, and abolition of the tax rebate previously offered to exporters, are frequent objects of complaint by Spanish businessmen. The Confederation of Spanish Business Organisations (CEOE) regard it as particularly unfair that their members should have to pay much larger social security contributions than their foreign competitors.

It is generally recognised that a more concerted export drive and a stronger government campaign to promote overseas sales are needed. The Institute for the Promotion of Exports (INFE) was recently set up to finance consortia of smaller and medium-sized companies which co-operate to export common products. INFE's budget, at around Pta 7.5bn, is small compared with that of its competitors, and the CEOE would like the government to devote 1 per cent of total export income to export promotion.

This would give INFE four or five times its present budget, though CEOE estimates that the exchequer could find this money at no net loss to revenue by using the sums it is saving from the abolition of export tax relief. But the Government, according to CEOE, plans to increase INFE's budget next year by only one-third to around Pta 10bn.

European Community sources say they find INFE remarkably efficient and unbureaucratic by Spanish standards.

But others take the view that spending more on promotion cannot begin to offset the loss in competitiveness occasioned by the new tax regime. Prof Francisco Granell, of the Barcelona Chamber of Commerce, estimates that the abolition of the export tax rebate is costing exporters a total Pta 150bn, or 20 times INFE's annual budget.

David Rudnick

Property

Sharp demand for office space

IN SEPTEMBER Heron International, the UK-based property and financial services group, beat nine competing companies to acquire Inmobiliarias Reunidas, which formerly belonged to Rumasa, the private holding which was expropriated by the state in 1983, when it was allegedly bankrupt.

Two months later a Swiss group that had narrowly lost to Heron, bought the main Madrid offices of Banco de Santander. It was the costliest purchase by far of a single building in Spain and one of the most expensive in Europe.

Heron ended up paying $78m for its acquisition, which comprised some 200 mainly small office premises scattered around Spain and one, the twin towers known as the Torres de Jerez, occupies a prime site on Madrid's main boulevard, El Paseo de la Castellana. The price paid for the Torres, which could not be acquired separately, was $30m.

The acquisition included an agreement by the company to invest a further $222m in Spanish real estate over the next few years. This is unlikely to be a burden for Heron. As Heron said at the time of the Inmobiliarias Reunidas acquisition, there are now "unique opportunities" to buy into office rental space, which is "much in demand following Spain's entry into the EEC."

Heron already owns an office block on the Paseo de la Castellana and the price per square metre on the boulevard has risen from Pta 1,600 at the end of 1984 to Pta 1,900 at the end of last year. Last June the square metre stood at Pta 2,200 and in November it was up to Pta 2,300.

The Swiss rivals for the Torres de Jerez paid $76.3m for the Banco de Santander building, which is also on the Paseo de la Castellana. The premises comprise 36,000 sq m, of which 25,000 are available for office space.

The new proprietors, who include the watch manufacturer Mr Pierre Blum and the property developer Mr Michael Tarin, agreed to have Banco de Santander stay on as tenants for at least three years and not more than five, while the bank's new premises, a smaller 100-year-old building on the same boulevard, is refurbished.

While the September and the November deals were being negotiated giant excavators and cranes were at work, once more on the Paseo de la Castellana and close to the Santander building, on a development that symbolised more than anything else the property boom in the Spanish capital.

The new landmark on the Madrid skyline will be a 45-storey office block, with 57,000 sq m of available space, called the Torre de Picasso.

This exceedingly tall building represents an investment of more than $80m at present and it is scheduled to be completed early in 1989.

Property-watchers in Madrid say, however, that the Torre de Picasso's owners, Portland-Valderrivas, a subsidiary of the UK cement company which has the controlling interest, and Explosivos Rio Tinto and Banco Zaragozano, are speeding up the work on the site and that it could be ready for use before the end of 1988.

The urgency reflects the extraordinary and growing demand for office space. Over the next two and a half years some 175,000 sq metres of office space will be coming on to the market in Madrid, with the Torre de Picasso accounting for half the amount. Property experts say that at least 250,000 sq metres' worth could be taken up during that period if it were available.

The present vacancy factor of some 48,000 sq metres of office space currently available for sale or letting in Madrid is only 1.58 per cent.

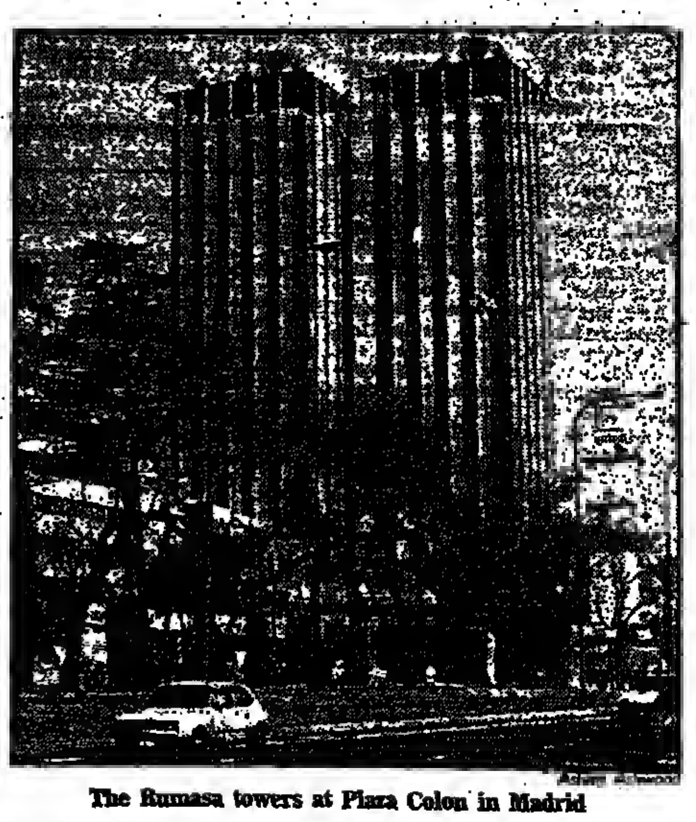
But the real indicator that EEC membership has changed the face of the Madrid property market is an ambitious plan, unveiled this year, to build a big trade fair centre, to be called the Campo de las Naciones, on the outskirts near the international airport.

Work began in October on the exhibition and conference complex which will cover an area of 4.3m sq metres. The initial infrastructure outlay of just over $70m has been put up by the Government, the Madrid City Council, the Madrid area regional government, the local chamber of commerce and the Madrid Caja de Ahorros savings bank.

The plan is to build six exhibition pavilions with a total showroom space of 105,000 sq metres (the National Exhibition Centre near Birmingham is somewhat smaller with 93,000 sq metres), a conference hall to seat 20,000, two hotels and a large recreational park with swimming pools, sports facilities and a golf course.

The first phase of the complex is due to be completed by 1988. The Spanish Government and the other investors behind the Campo de las Naciones have decisively betted on the continued growth of Madrid and are determined to build facilities that will rival those found elsewhere in the EEC. Over the past four years the space available for trade fairs in Madrid has nearly doubled to total 210,000 sq metres and visitors to Madrid exhibitions have increased from 800,000 to 2m.

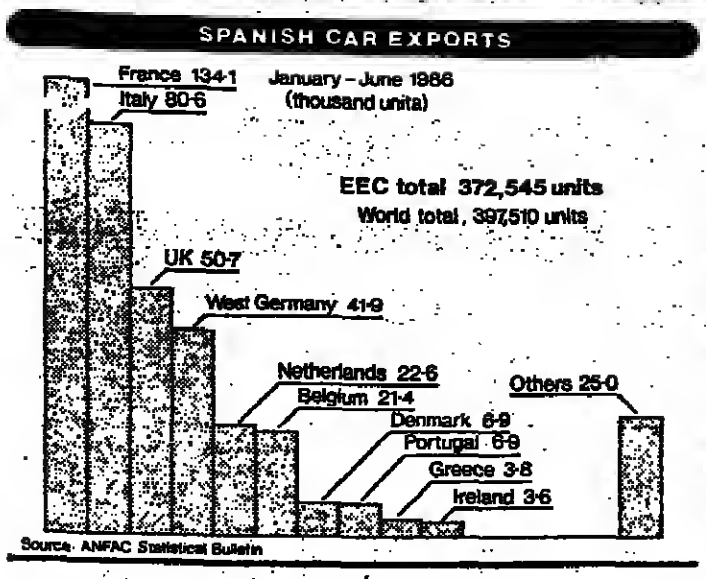
To judge by the property deals over the past three months such optimism is shared by the international property investors.


Ashley Ashwood

The Rumasa towers at Plaza Colon in Madrid

Tom Burns

SPANISH CAR EXPORTS



Source: ANFAC Statistical Bulletin

The Unions

Conflict looms on government labour reforms

UNION membership in Spain is now low and falling. An International Labour Organisation report four years ago estimated it at no more than 17-25 per cent of the workforce.

When the last union elections were held, also four years ago, 36.6 per cent of the elected shop floor delegates belonged to the Socialist-led Union General de Trabajadores (UGT), while 33.4 per cent represented the Communist-led Comisiones Obreras (CO). The remainder belonged to various minority and regional groups.

In the Basque region, however, the local union (ELA/STV) remains stronger than either of the two main national unions, though for historical reasons it is closer to the UGT.

The CO is more tightly organised than the UGT and less open to the charge of collaborating with, or even selling out to, the present Socialist government. UGT, on the other hand, benefits from more international recognition; it belongs to the European Trade Union Confederation, which the CO would like to join.

The UGT generally attracts more members employed in the service sector, and it has recently made advances in big foreign-owned factories like Ford. The CO draws most of its strength from the older manufacturing and heavy industrial sectors.

Both Socialist and Communist-led federations accept Spanish membership of the European Community and both unreservedly welcome foreign investment.

Several reasons are adduced for the low level of union membership. The Labour and Social Security Minister, Mr Manuel Chaves, previously a senior UGT leader, believes that only a decade after the end of Francoism the workers have apparently not yet acquired the habit of participation in democratic trade unions.

The veteran general secretary of the CO, Mr Marcelino Camacho, blames it all on unemployment, at officially just under 22 per cent one of the highest rates in the OECD.

Another reason may well be the prevalence of undeclared jobs in the black economy. The Economy Minister, Mr Carlos Solchaga, recently raised a political storm by suggesting that the real unemployment rate was nearer 15 per cent.

The main trade unions are none the less a force to be reckoned with and their intense rivalry can lead to a degree of competitive militancy in formulating demands, with the UGT anxious to disprove the perennial charge that it meekly adheres to the Socialist Government and its rigorous economic policies.

The UGT's actions over the past year are certainly not those of a Government poodle. It forced the Government to meet its objections and amend an important new pensions law. Then, entirely against Government policy, it campaigned for a "no" vote in Spain's Nato membership referendum last March.

Most recently, and importantly, the UGT has forced the Government to revise its 4 per cent inflation target for next year to 5 per cent as a condition for its continuing support for an inflation-linked wage-moderation accord.

For the past two years the UGT has backed this tripartite incomes policy, agreed with the Government and the CEOE employers' organisation. Under it wage limits have been set in exchange for promises of public investment and other employment-boosting measures. The agreement expires at the end of the year but negotiations on its renewal have been held up because of the rivalry between the two big union groups as they again fight nationwide elections to choose shop-floor delegates.

These latest elections, which began on October 1 and finish at the end of the year, are expected to confirm, and probably enhance, the UGT's advantage over the Communist-led CO. But until the full results are known little progress on the renewal of the tripartite incomes policy can be expected.

The CO declined to join in the labour pact two years ago, leaving the UGT as the only signatory. UGT leaders say they would welcome CO participation in a new agreement and in September the Economy Minister discussed the possibilities with Mr Camacho.

If the union election results indicate popular endorsement of the UGT's collaborative policy the CO leader may well deem the time ripe to associate his federation with it.

Mr Chaves, the Labour Minister, says the Government would like to see the CO "come on board," but he does not believe it is likely to happen. He fears that union demands for wages in excess of the forecast 5 per cent inflation rate might erode Spain's competitive position in the EEC next year.

Meanwhile, the strongest focus of incipient conflict between the Government and the unions lies in the field of labour market reforms. The notorious rigidity of Spain's hiring and firing laws, a legacy of the paternalism of the Franco régime, is widely seen (though not by the unions) as a key factor preventing labour mobility and job creation.

Flexibility is the current buzz-word. In 1984 the Government introduced a new type of fixed-term contract enabling companies to take on workers for a minimum of six months and, in case of termination, give them only 12 days' pay for each year of service. The Government claims that this reform, together with incentives for hiring young people, has helped to create more job opportunities and contain the rise in unemployment.

It is supported in its attempts at labour market reform by recent OECD and International Monetary Fund reports on Spain which singled out inflexibility as a prime constraint on both job creation and improved productivity.

The Government is now considering further reforms designed to liberalise the labour market. Chief among them are the proposed abolition of the statutory minimum wage for workers aged 18 to 24, the reduction of redundancy payments, the extension of short-term contracts, and removal of contractual obstacles to part-time employment.

The unions in general reject these proposed reforms, which they see as a thinly-disguised method of undermining job security and advancing the bogey of instant dismissal.

Mr Jose Maria Zufiaur, a leading UGT official and publicist, regards labour market rigidities as merely the latest scapegoat for the country's economic ills.

If labour market rigidities really are so serious, asks Mr Zufiaur, why are foreign companies continuing year after year to invest in Spain, their "low-wage Eldorado?"

But the unions' objections to labour market liberalisation are not likely to deter the Government from its chosen course.

David Rudnick

Motor industry

Domestic demand picks up in all sectors

THE MOTOR industry has played a key role in the growth and modernisation of Spain's economy since the early 1960s. Today, with annual output of cars and commercial vehicles touching 1.4m units, the Spanish motor industry is the fourth largest in Europe, behind West Germany, France and Italy, and the sixth largest in the world.

All the major European volume car makers, together with Ford and General Motors (GM) manufacture in Spain, attracted by still-competitive wage costs, its originally high tariff protection, and convenient situation as an exporting base. Exports account for 64 per cent of the industry's output.

The multinationals' strong export orientation has in recent years been encouraged by a relatively sluggish home market, but the most recent data from the Motor Industry Manufacturers' Association (Anfac) show internal demand picking up in all sectors except tractors and all-terrain vehicles (ATVs).

Domestic producers' sales of cars—by far the dominant sector—grew by 7.4 per cent to August 1986 over the corresponding period of 1985, with GM showing the biggest increase (39 per cent), while Citroen's sales fell by 16.4 per cent.

The heavy truck sector, previously the most depressed, saw home sales rise by 32 per cent, with Motor Iberica (Nissan) showing the biggest increase (78 per cent).

The upswing in domestic demand actually began in the last quarter of 1985, fuelled by buyers' eagerness to beat the introduction of value added tax, which Spain had to adopt on joining the European Economic Community at the start of this year.

The home market's continuing buoyancy may be partially due to continuing inflationary expectations, though most market observers do not expect it to last. For the moment domestic sales are uncharacteristically expanding much faster than exports, which stagnated (down 0.2 per cent in volume) between January and August.

Citroen again registered the biggest drop (26 per cent), but the other French producers, Fasa Renault and Citroen's related company Peugeot Talbot, increased their exports by 37.5 and 10.5 per cent respectively. Ford and GM remained static, but on an already high volume base.

GM is the biggest volume exporter with sales running at an annual rate of 220,000 cars, but in value added terms it could be Ford, since GM import their engines and transmission systems from their plants in Austria.

Car manufacturers tend to be bitter at what they see as a discriminatory VAT rate of 33 per cent, treating cars as luxury goods rather than consumer goods which only attract a 12 per cent rate. (Trucks and commercial vehicles come into this latter category.)

The finance ministry, however, maintains that before VAT was introduced the tax regime was if anything harder, since it was based on a 24 per cent luxury tax, plus a 5 per cent service tax which, because of its cumulative impact (the "cascade" tax) put the final tax above the present VAT rate.

Wherever justice lies, the *Government is unlikely to yield* to industry pressure to lower VAT since it needs all the revenue it can raise to cope with public deficit.

The EEC takes the bulk of Spain's car exports, but since Spain joined the Community imports have also shot up, to 60,000 units in the first half of 1986 from 37,000 units in the same period of 1985.

Imports, therefore, take up about 16 per cent of the *Spanish* market, and as tariffs come down under the terms of Spain's EEC accession treaty, imports from Community partners seem set to rise further. Some analysts expect import penetration to reach 20 to 25 per cent in seven years' time when tariffs on EEC imports are completely down.

To meet this new competition, the Spanish Government is taking steps to strengthen the industry. Ford and GM, already strongly geared to exports, do not feel seriously endangered by an import squeeze, but companies more dependent on the home market are receiving government aid.

The three French car makers are getting grants and loans totalling around $58m towards restructuring their current multi-model operations.

But the biggest restructuring move came last June with the sale of the state-owned Seat concern to Volkswagen for $560m. Seat had been sustaining heavy losses since the late 1970s—last year it lost $258m—and the *Goverment considered* the investment needed to revive the company far beyond its resources.

It took several years to find a new owner for Seat, after it had been abandoned in 1980 by its former partner Fiat, and Volkswagen only agreed to take on the company after the Spanish Government had pledged a $1.2bn aid package to help cover its debts.

VW plans to *rationalise Seat's* workforce—already reduced by 10,000 since 1980—to around 17,000 by 1992.

Seat's president, Mr Juan Antonio Diez Alvarez, rebuts criticism that preserving Seat as a separate company is small recompense for sealing off Spain's only domestically-owned car maker at the taxpayer's expense. Right from the start, he says, in the 1950s when Seat was set up as Spain's national car company, the Government had sought foreign capital—then Fiat—to provide technology, know-how and export marketing support.

With Fiat's withdrawal, the excessive burden of keeping Seat competitive with the international giants had fallen on the Spanish taxpayer. Now, with its sale to VW, the burden has been lifted, even if it has involved the taxpayer in a final outlay twice as high as the price paid by Volkswagen, to put Seat's financial house in order.

Despite continuing losses, Seat's export performance is improving; in tandem with VW they have built a new dealership network abroad, and they expect to benefit from VW's enormous purchasing power when shopping for components.

Another troubled company, in the commercial vehicle sector, is Barcelona-based Motor Iberica, over 90 per cent owned by Nissan. The Japanese originally bought Massey Ferguson's 36 per cent stake in Motor Iberica in 1980, hoping to use Spain as a *springboard to penetrate European* markets otherwise closed off by quota restrictions.

But so far things have not quite worked out as planned; Spain's depressed light trucks sector disappointed hopes and necessitated successive injections of Nissan capital.

Mr Juan Echevarria, Motor Iberica's president, is confident however that 1986 will prove to have been a turning point; he is hopeful that losses will start to come down—to Pta 9.5bn from Pta 10.5bn last year, and that with short-term interest rates falling, financial charges will represent only 8 per cent rather than 9 per cent of sales.

By 1990, Mr Echevarria expects the company to be able *to look after itself financially*, though it will always remain technologically dependent on Nissan. Paradoxically for such a loss-making company, Motor Iberica enjoys a dominant market position: trucks 55 per cent (one million units), commercial vehicles 50 per cent, four-wheel drive vehicles 56 per cent.

Ford, celebrating ten years of business in Spain, is in mellow mood. Mr Patrick Byrne, managing director of operations in Spain, sees the company's main challenge as matching the cost efficiency of the Japanese. Though the company is one of the most profitable in the industry, he says that increasing competition, particularly now from imports, has "reduced the size of the cake, with more people competing for a piece."

Mr Byrne nevertheless confirmed that after an "alarmingly slow start" this year, the Spanish market has been growing faster since the second quarter.

There would appear to be room for some optimism that demand in Spain has embarked on a sustained climb.

David Rudnick

Market Share

Car Producers in Spain

	Jan-Sept 1985 %	1986 %
Fasa Renault	31.2	27.8
Seat	11.7	12.3
Volkswagen	8.4	7.7
Ford	14.2	14.3
General Motors	11.7	13.2
Talbot Peugeot	12.7	11.6
Citroen	6.1	5.0
Others	4.2	8.3

Source: 1985 Government figures; 1986 ANFAC estimates.

INI

Lame ducks come under fire

ALTHOUGH Spain is a nation of individuels—and many individualists—more and more examples of teamwork and game plans can now be observed.

The careers of Messrs Carlos Solchaga, Luis Carlos Croissie and Claudio Aranzadi—and tha fortunes of the Instituto Necional de Indnstria (INI), the sprawling public-sector holding company—are ceses ln point.

After four years each of the three man finally found his niche in recent months and the trio now represent the interlocking pieces of an administrative jigsaw puzzle—tha role and the future strategy of INI.

The three agree that the public sector has a apecific part to play in an economy such as that of Spain and they not only see *eye-to-eye* on what this should be but they also have the power to do something about it.

In 1982 Mr Solchaga, a socialist party stalwart, was appointed Minister of Industry in the incoming Socialist Administration. He in turn appointed another yonng socialist and economist, Mr Croissier, as bis under-secretary and had Mr Aranzadi, another contemporary in hia mid-thirties, nominated deputy chairman of INI.

Mr Solchaga had confidence in Mr Aranzadi who, while not a Socialist, bad worked with him in the economic researcb department of Banco de Vizcaya. Both were "discoveries" of Spain's premier talent-spotter, Mr Pedro de Toledo, who next month formally takes over as chairman of Banco de Vizcaya.

In 1984 Mr Solchaga managed to hand the INI cbairmanship to Mr Croissier. INI's losses had continued to climb under Mr Enrique Moya, a veteran and well-connected Madrid businessman who was certainty not a Socialist and had been given the job in 1982 precisely because of that.

The new Government had been anxious at the time to still the fears of the business community with "safe" appointments such as thet of Mr Moya.

To the surprise of just about everybody except Mr Solchaga, Mr Aranzadi, who remained as INI's deputy chairman, and Mr Croissier, the new incumbent in the public sector bot seat, e wbolly new strategy began to evolve.

Companies in the INI gronp began to be sold to the private sector. Others were shut down end, in general, n ruthless attack was made on loss-making lame ducks.

In 1985 Mr Solchaga got the job be had long songht. In what proved to be a tempestuous cahinet resbuffle (it was the only period when the Prime Minister, Mr Felipe Gonzalez, has seemed at sea), Mr Migual Boyer, the controversial "Snper Minister" and the main architect of the Socialist austerity programme, left the Government.

Mr Solchaga then took over as Minister of the Economy, the Exchequer and Trade, though ha had to wait another full year before he was able to fit every piece into place.

The chance came after the June elections and hia reappointment as the Government'a economic supremo. Mr Croissier was then hrought lnto the Cablnet as Industry Minister and Mr Aranzadi was promoted to become INI's chairman. The team was at last comnlete.

It therefore comes as no surprise that the overall game plan is now being played to its limits. INI is answerable to the Industry Ministry, which is dependent on Mr Solchaga, who holds the purse strings. The pubilc sector chairman, the Minister and the "Snper Minister" know each other well and there *is* mutual trust and admiration.

In synthesis, the target is to turn INI into a dynamic industrial power house, promoting and stimulating here, consolidating there and setting an example everywhere.

INI, the creetion of Franco's corporativist and autarchic economy, ls an excellent experimental laboratory for modern-minded young Socialists like Mr Solchaga and Mr Croissier and for enthnaiastic fellow-travellers like Mr Aranzadi.

These men believe in strategic, state-controlled industries but they also believe that they should pay their way.

Bnt there is certainly not e Leftist antipathy towards private enterprise. If anything, there is n will to work with it. In those instances where private enterprise can improve on state control, INI gracefully bows out withont the alightest regret.

This past year has afforded several clear examples of the strategy at work. Mr Croissier managed to fulfil his personal ambition, before leaving to join the Cabinet, of selling off Seat, tha INI-owned car manufacturer, to Volkswagen of West Germany. In 1985 Seat had posted losses of Pta 36bn.

There was no public ontcry over tha loss to foreign interests of Spain's only national car manufacturer. Along with nighs of relief there was e calm and realistic acceptance of the fact the Spanish economy was simply not ready for such giddy industrial projects.

Mr Aranzadi has e list of strategic industries which he inherited from his predecessor. It Includes defence systems, capital goods, shipbuilding and steel production. A secondary list itemises sectors which are considered to have "growth" potential as well as strategic value.

The present chairman has also moved along the mixed company road.

Just as innovative was the decision in October to offer to private investors on the Madrid Stock Exchange a 38 per cent holding in Gersa, an INI-owned gas and electrical utility which has a successful business ln the Balearic Islands.

This was very much n pilot scheme and the ensuing rush for shares prepared the way for future flotations of minority stakes in INI companies.

Mr Aranzadi meanwhile passed with great panache the "shoot down the lame ducks" test. In September he was totally deaf to trade union requests that INI should take over Rio Tinto Minera, the Hnelva-based copper mining concern which was threatened with closure by Rio Tinto Zinc.

Mr Croissier had passed the test in 1984 when he forced through the closure of an INI *integrated steel plant* in Sagunto, near Valencia. Mr Solchaga had previously set the pace as Industry Minister when he began a determined nationalisation of the shipbuilding sector.

Tom Burns

Technology

Ambitious goals are being set

SPAIN IS rushing to bridge the technology gap that separated her too long from post-Second World War Europe. Progress has already been remarkable for a country that 30 years ago was predominantly agricultural and poor, and that only set up a National Fund for Scientific Research and Development in 1964, when emphasis had begun to shift from farming to manufacturing.

Rapid industrial development meant heavy reliance on imported technology—in 1973, companies paid out Pta 8bn for technology imports and only managed technology exports of Pta 213m.

In 1986, the emphasis is no longer on industrialisation wherever and however, but on modernisation, replacement of imported technology and development of Spanish technology.

The goals are ambitious. But European accession and the opportunities it offers for increased Spanish participation in multilateral and bilateral European technology projects have spurred the administration to make official promotion of technology more co-ordinated and efficient, and companies to set up their own research and development programmes drawing on a new generation of science graduates from reformed universities, and on government funds to assist them with their programmes.

Dogged emphasis on technological innovation since the late 1970s has already permitted a growing number of Spanish enterprises to take part in major European programmes.

Whereas only a few years ago, no more than three Spanish concerns—Construcciones Aeronauticas, the huge aeronautical construction corporation, and two official institutions—were in a position to participate in the European Space Agency, today, 30 Spanish businesses are participating, contributing with hardware and software, composite materials and feasibility studies.

Spain has a strong presence in the Eureka programme, especially in medical research, working on automated diagnosis by sensors of cardiovascular problems and venereal disease, and on a calcium-inhibiting drug for patients with high blood pressure.

The 1983 University Reform Act that brought greater emphasis on R & D, and the 1986 Scientific Research and Development Law that permits smoother co-ordination of technology programmes and of co-operation between university and industry, are the linchpins of the new structure which, Spain's younger generation of officials and entrepreneurs believe, will move their country higher on the scale of technological advancement.

Spending on R & D has leapt from a paltry 0.36 per cent of Gross Domestic Product in 1982, to 0.9 per cent this year. Next year the Ministry of Industry expects the ratio to reach 1 per cent of GDP—coming gradually closer to EEC averages of 2 per cent of GDP.

Spanish companies which devise their own research programmes can receive substantial government help.

While the Ministries of Education (instigating major changes in the Spanish university system) and Industry (co-ordinating and instigating the modernisation of Spanish industry from its hustling high-tech building in Madrid) oversee the major guidelines of technological innovation, working in an interministerial commission, the CDTI (Centro de Desarollo Tecnológico y Industrial), formed in 1977 on the initiative of the World Bank, acts as the filter through which projects, funds or venture capital flow in both directions, and co-ordinates Spain's participation in international projects like Eureka, Esprit, the European Space Agency, and Europolis, the European traffic control project.

In 1985, the CDTI channelled credit of Pta 11bn ($85m) to technology research and development programmes—the largest annual figure ever, and culmination of a two-year drive in which three times more money was spent on promoting R & D than in the first five years of the CDTI's existence.

The priorities for Spanish R & D are in agriculture and offshoots like production of algae, new techniques for marine resources, new food products, biotechnology and medicine, electronics and data processing, and manufacturing techniques.

Just as urgently, energy savings, in a country where energy is expensive and heavily reliant on imports, and protection of an environment that is seriously polluted in some industrialised areas, are receiving concerted attention.

Although precise figures are not available, it is known that Spanish industry in recent years, especially export-oriented companies, has been investing more in research, bringing more science graduates and accepting in growing numbers that without methodical investment in development of domestic technology, in new quality controls and modern manufacturing and data processing techniques, Spanish industry, which has an ambition to grow and prosper in Europe, will not be able to keep up the pace.

Diana Smith

Projects approved

ACCORDING TO AUTONOMOUS COMMUNITY AND AREA
AREA OF RESEARCH (see key)

COMMUNITY	AA	BM	EI	EV	ME	ESA	TOTAL
Andalucia	6	1		2			9
Aragón	4	3	2	3	4		16
Asturias		1		4	3		8
Cantabria	2			1	1		4
Castilla-La Mancha	1						1
Castilla-León	1			1			2
Cataluña	12	28	9	15	20	1	85
Extremadura		1					1
Galicia	5	2	1		2		10
Baleares	3						3
La Rioja	1						1
Madrid	1	16	27	12	7	2	59
Murcia	1	1			1		3
Basque Country		1	2	1	1		5
Valenciana	2	3		2	2		9
Total	39	52	41	41	41	3	216

Key—AA, Agro-Food; BM, Biotech, Medicine & Chemistry; EI, Electronics & Data; EV, Energy; ME, Mechanical & Manufacturing Processes; ESA, European Space Agency; AC, CDTI Contribution.

Source: CDTI.

Farm Produce

Settling in with the EEC

ORANGES and lemons, satsumas and clementines will have completely free access to European Community markets only in 1990, according to Spain's Treaty of Accession.

This prospect does not please the citrus fruit growers of southern Spain, whose 1986-87 crop is likely to reach a record 3.79m tonnes—8 per cent more than last year—and who have had to accept restrictions on their exports to EEC countries until 1990 while non-EEC exporters from the Mediterranean that have long enjoyed access to EEC markets prepare for the future when Spain's transition has ended and it gains full EEC membership.

The irony of marking time for the benefit of non-EEC fruit and vegetable exporters is not lost on enterprising Spanish growers, who could turn suitable parts of the country into the out-of-season flower, plant and market garden of Europe.

"Joining the EEC is like moving into a new house," says Mr Maria Portera, secretary-general of the Confederation of Spanish Farmers. "At first the rooms feel wrong and you can't find anything. Then you settle in. We will settle into the EEC and we intend to make a good job of it."

The drive to improve produce and market it still more energetically under the new EEC canopy is manifest among Spain's more efficient farmers and their trade associations. About 17 per cent of the country's population is engaged in farming, though this figure may give a misleading picture.

From citrus to onions, lentils to cut flowers, Spanish growers have been trying for greater volume and higher quality in areas where farming has graduated from subsistence level to a strong-market-oriented business.

While in Galicia 45 per cent of the active population still works in largely-subsistence farming where adaptation to EEC standardisation, red tape and market organisation will be difficult for some years, in highly-industrialised Catalonia only 3 per cent of the active population still farms.

These early months after accession to the EEC are not only strained by the Community's two-tiered schedule for Spanish agriculture which obliges some of its best produce to be treated temporarily as third-country crops—they reflect the sudden, sharp impact of much-increased EEC agricultural imports into Spain.

By September, according to Agriculture Ministry figures, the farm trade deficit had reached $237m compared with a deficit of only $7m in September 1985.

The shortfall was caused not only by the usual annual fall in citrus exports at this time of year but by heavy increases in imports of cattle and animal products (meat, butter, cheese and hides).

Prices fell for key exports like flowers (down 14.2 per cent), fresh fruit, apart from citrus (down 18.2 per cent), and fresh vegetables (down 12 per cent).

Imports of livestock trebled compared with January-September 1985, imports of EEC meat rose from 49,200 tonnes in January-September 1985 to 109,800 tonnes by September 1986.

Despite restrictions, citrus exports as a whole increased this year to 2,167,400 tonnes, compared with 1,528,000 tonnes last year—while the Spanish satsumas or clementines now on prominent display in London food shops are evidence of the growers' serious intentions.

Diana Smith

Small Businesses

Learning how to survive

"JOINING THE Common Market is like opening a door and letting in an icy blast," says Mr Elias Aparicio, the energetic young secretary-general of the Confederation of Spanish Small and Medium Businesses.

"Obviously, you could shut the door again to keep out the cold air. But you could also be bolder, turn up the central heating and put on warmer clothing. What we need is more efficient heating and better clothing."

There is no question of "slamming the door shut" against the European winds of change, but to Mr Aparicio and the members of the Confederation the Spanish Accession Treaty did not stoke the national boiler up enough and the pace of change in legislation to meet EEC demands has been too slow to offer businesses sufficently warm clothing to save them from catching a few colds.

Trade figures for last September show the effect of the chill: a deficit of Pta 36bn ($216m) in trade with the EEC compared with a surplus of Pta 12bn ($72m) in September 1985.

Spain's protectionist barriers are collapsing and small and medium-sized businesses are struggling to meet the new, aggressive competition with trade weapons that are, in their view, deficient.

Rigid labour laws make it hard to move employees from one job to another inside a company without lengthy union negotiations while punitive rates of social security contributions put 65 per cent of the burden of social security financing on the employer, compared with an average of 49 per cent in the EEC.

High financing costs and kilometres of red tape—a heritage from the old, oppressively-protectionist economy—are other main obstacles to quick adjustment to new competitive pressures and management methods.

Stronger market forces and less Governmental weight are the ultimate goals of a small-to-medium business sector that employs 57.8 per cent of all Spanish workers. A host of companies, many with fewer than 10 employees, notably in the furniture, footwear and accessories sectors, are gingerly learning how to survive in a much bigger and more complex market that has no place for businesses which resist adaptation.

The problem of bureaucracy in a nation where incentives and support go hand-in-hand with labyrinths of red tape—unless the entrepreneur can resort freely to (expensive) market financing for his projects—is a perpetual irritant, as readily recognised by the Government as by the entrepreneurs.

Here and there steps have been taken to reduce bureaucracy or make it more comprehensible. In Madrid the local authorities have established the "single window," where all forms, documents, applications, certificates, stamps and supplements can be handled in one place at one time.

In the Autonomous Communities, terminals of data banks and Advice Bureaux provide exhaustive (and to some businessmen, exhausting) information about legislation and procedures.

Despite the frustrations of many small-to-medium businessmen with excessive management costs and rigid labour laws, there is a constructive dialogue between business and Goverment and in many areas a useful feedback.

Realistically recognising that Spain, to compete effectively, must move its products up-market and not down-market, and create an image of high quality, bold design and fashion-consciousnes on the international scene, Government and businesses are working to achieve the "Spanish look."

With state help for technological development, hiring designers and textile researchers, setting up laboratories, and improving production methods, Spanish companies are not only accepting that good design is potentially profitable—not a frivolous frill—but enthusiastically striving to upgrade the textile and clothing industry.

Next on the standard-raising agenda are furniture, footwear, jewellery and other accessories, largely made by small companies with a lot of creative energy but not always a strong sense of direction.

On the principle that it is sometimes easier to manage in a group than on one's own, a number of companies are combining to operate in greater strength in marketing, consultancy work or exporting.

Going a step further and bringing Spanish small or medium businesses together with other EEC companies in a similar or complementary line, is slightly more difficult, but interest in the idea is growing fast.

Spanish businessmen are not saying "mañana" about the problems of EEC accession that lie not only in sloughing off uncomfortable and antiquated legislation but also in adapting en masse to EEC standards of quality. The small business ethic is deeply rooted in the Spanish character. Statistics show that of the average of Pta 11-13bn ($66m-78m) that are invested daily in the Spanish economy most are derived from the assets of small businesses.

There are 400,000 such businesses in all the provinces of a country that has turned its back on Franco's attempts to homogenise its language, customs and attitudes.

The post-Franco autonomous communities have been drawn into the efforts to support and co-finance small business investment and strengthen a sector that aims to be a strong driving force in the economy and an important presence within the EEC.

Diana Smith

Wine

No longer a 'plonk' image

DESPITE a growing acceptance of Rioja and one or two other still and sparkling wines, Spain has still not quite shaken off its old image as a producer of bulk rather than quality wine.

In line with its image as a cheap package holiday destination, its reputation as a supplier of cheap, cheerful, frankly down-market wine is somewhat unfairly persisting in the more quality-conscious 1980s.

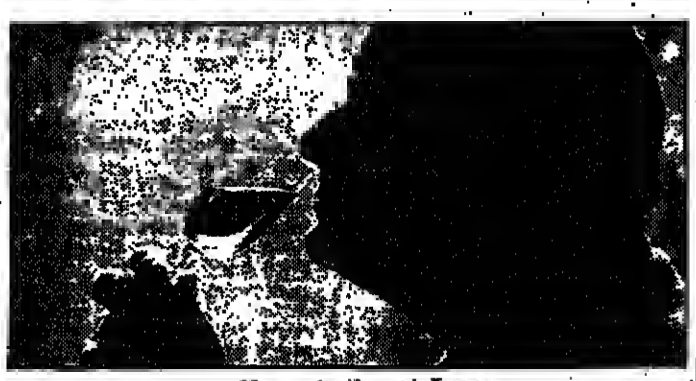
But Spain is no longer a mass supplier of very cheap wine, the famous plonk (or "plunk" as the *Spaniards say*). The proportion of bottled wine with a controlled denomination of origin label and sold abroad is rising rapidly. The trend is most noticeable in the UK and somewhat less on the Continent, where Spanish bulk imports are still blended with local wines.

Sales of sherry

(current per annum)

	Bottles (m)
United Kingdom	60
The Netherlands	45
West Germany	30
Spain	26
US	15
Denmark	4
Belgium	2
Other markets	8
Total est. consumption	190

Source: Institute of Sherry Exporters.



Sherry-tasting at Jerez

Even if Spanish wine is slowly starting to acquire a more respectable image, much promotional work still needs to be done to defend, and where possible advance, its share of foreign markets—particularly in the European Community where complete parity of trading is due in 1993.

The UK is easily Spain's biggest wine market, taking about 50 per cent of its exports, but over the past six years Spain's market share has halved, from 12 to 6 per cent, while those of France and West Germany have steadily advanced.

Belatedly, perhaps, the Spanish government and wine trade have begun to mount a more effective and co-ordinated publicity campaign. "Wines from Spain," the official promotional body that operates under the aegis of the National Institute for Export Promotion (INFE), is beginning to get realistic budget allocations.

The attack on the low-quality image originated in the UK, where "Wines from Spain" was first established in 1979. Its achievements in boosting export volume may not look particularly impressive so far, but its expanding budgetary resources—£1.25m this calendar year and well over £2m scheduled for next year—are enabling it to make more impact. Last summer £500,000 was spent on informing UK television viewers of the delights of lesser-known Spanish wines from Penedes and Navarre.

But these sums pale somewhat compared with the amounts spent on sales promotion and advertising by some of the bigger bodegas on their own account. In the fast-growing sparkling wine sector, (output up 50 per cent in the last five years) the market leaders Freixnet spent $4m in the US alone last year, including $500,000 on a Christmas advertisment featuring Raquel Welch. Other expensive TV slots featured stars like Liza Minelli and Placido Domingo.

Backed by a strong distribution network, Freixnet claims that it is already the biggest-selling brand in the US, which absorbs 60-70 per cent of its foreign sales.

Unlike some other Spanish exporters, Freixnet says it has no "image" problem in North America. In 1984 the company acquired the Rumasa wine group to become the world's largest producer of "méthode champenoise" sparkling wines. Last year, with sales worth $81m, it opened wineries in Mexico and California and even took over a small winery in Champagne itself.

Codorniu, its Catalan neighbour and arch rival, is the other leading producer of sparkling wine and two-thirds of its exports go to the US market. Europe especially the UK, Belgium and, of course, France, it describes as a harder nut to crack.

Yet it expects the biggest market growth in Europe to be in the UK, where it has a strong distribution network. The US is naturally Codorniu's main target. After a period of retrenchment because of distribution problems, it plans to step up its marketing effort with a $2m pre-Christmas advertising campaign on radio.

Spanish sparkling wine producers are of course banned from selling their products as "champagne," a name jealously guarded by the French. By 1992 they will also have to drop the description "méthode champenoise" from their labels. They have therefore eight years to promote "cava"—named from the cellars where the wines are produced and their own word for "champagne-type" wine.

Until recently, the bulk of their production was sold in Spain, but the growing fashion for light and sparkling wines appears to be helping their penetration of foreign markets. Export sales have tripled over the past five years. But they will have to be extremely price competitive to combat the entrenched position and prestige of French champagne.

In still wines—still easily the largest sector—there are also concerns with a flair for marketing. One of them is Miguel Torres, Spain's largest independently-owned wine producer, based at Vilafranca in the hills of Penedes south-west of Barcelona. Its promotional activities centre on the strong personality of its chairman, Mr Miguel Torres, who has an energetic approach to marketing his products.

If any Spanish wines can claim to be the aristocrats they are some of the Riojas, named after the relatively unknown region in the upper Ebro valley. Between 25 and 30 per cent of Rioja's output is exported, a trade which in 1985 yielded Pta7.3bn according to the Rioja Exporters' Group.

The Americans drink markedly less Rioja—less indeed than the Dutch or the Danes. One reason is thought to be that US consumers—as well as some younger Europeans—prefer a lighter, fruitier wine. Partly in an effort to meet this demand, go-ahead bodegas like Campo Viejo (part of the nation-wide Savin group) have turned increasingly to cultivating white wines.

Over the past three years Campo Viejo has invested about Ptas100m in electronically controlled cold fermentation equipment which allows the wine to acquire the desired bouquet while retaining its characteristic flavour.

This technique is said to reduce production costs, since the wine does not need to be aged in barrel. In 1980, 15 per cent of Riojas were whites, but now the proportion is around 20 per cent. With Rioja prices high in Spain itself, Campo Viejo says export markets offer the widest scope for expansion; and over the next five years it plans to invest Ptas400m in setting up an import and distribution network in the difficult US market.

Among fortified wines sherry is, of course, unique; but no survey of Spanish wines would be complete without it. Outside its native Andalusia, little sherry is drunk in Spain compared with the quantities consumed abroad.

It accounts for roughly 25 per cent of all Spanish wine exports, and retail sales worldwide are estimated to be worth about £500m a year (four times the free-on-board export value because of the high taxes levied on sherry sales). This total comprises: 40 per cent medium sherry, 35 per cent cream, 15 per cent fino and 10 per cent oloroso/amontillado.

World consumption, according to the Institute of Sherry Exporters, has risen from 24m bottles in 1950 to 190m bottles per annum today. Investment in brand advertising totals over £30m per annum, more than for any other Spanish export product.

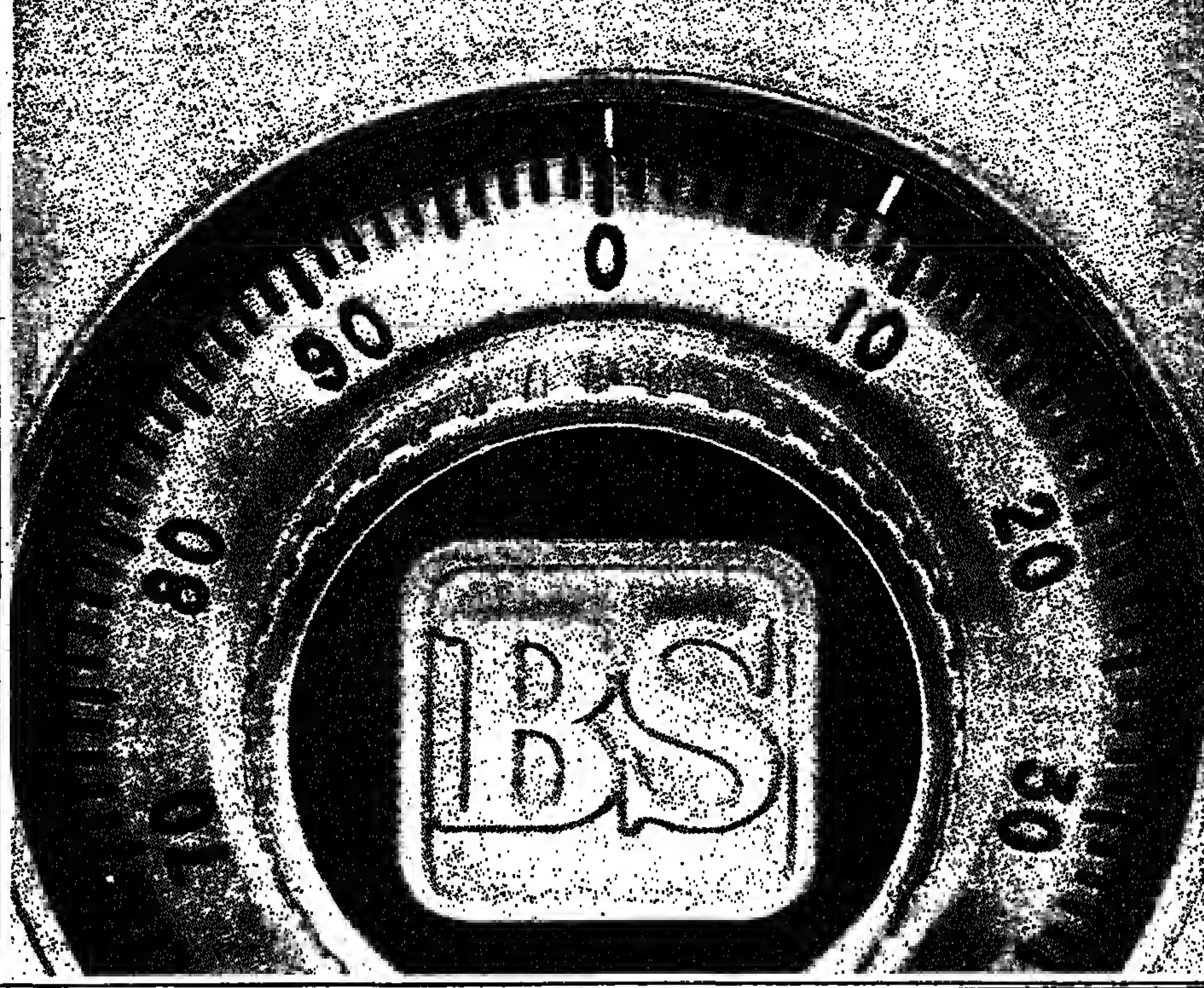
Yet behind these handsome figures all is not as well as it might seem. First, sherry is in danger of acquiring an image as an older person's drink. Young people are said to prefer long drinks to elegant, short aperitifs. Secondly, the sherry trade is worried that fashionable concern about health and diet and the perceived need to reduce calorie intake, may be leading people of all ages to turn to lighter rather than fortified wines.

Since 1978-79 the sherry market has largely remained static "we are sailing through calm waters," said a spokesman for the Institute of Sherry Exporters. Seen against the perspective of the 7 per cent annual expansion between 1953 and 1978, perhaps some consolidation was inevitable. But even so the sherry companies admit that "very low" profit margins are causing concern.

For wines in general, Spanish membership of the European Economic Community does not look like making a substantial difference on the supply side. Producers are receiving guaranteed EEC prices—higher, of course, than Spain's—for the equivalent of only 27.5m hectolitres of table wine, a quota roughly equivalent to normal annual output.

The growing range of better-quality wines under the controlled denomination of origin label are not affected at all.

David Rudnick



Cinema

A new freedom prevails

"BLASPHEMY!" cried L'Osservatore Romano. The strange object of deoUnclation by the Vatican oewspaper was Viridiana, the savage film satire directed by Luis Buñuel aod subsidised by the Spanish Government, that won the Palme d'Or at the 1962 Cannes Film Festival.

Spanish ceosors who had vetted the Viridiane script befora shooting began, bad not spotted the filmed possibilities of scenes like the grotesque "Last Supper" of derelicts that shocked seositive filmgoers.

The Church's condemnation of tha Buñuel film soon after a beaming Spanish official had accepted the Cannes prize, enraged Geoeral Francisco Franco.

Sinca the eod of a Civil War that embedded scar tissue in the fabric of the Spanish character, General Franco and his officials had viewed the cioema as a moral and political tool to be used by the régime to promote its concepts of society and an image of Spain's nnassailable superiority.

The Viridiana ontcry brought the unceramonious sacking of officials who had subsidised the film, and a ban on exhibition of the picture or mention of its name. The film was finally premiered in Spain in 1977 wheo General Franco was dead aod politics and attitudes towards the cioema had shed the constraints of self-conscious mythologising.

Banned foreign and Spanish films found an audieoce. Spanish filmmaking that had survived censorship, persistent petty official interference, bonts of pnblic apathy aod the despondency of producers and directors, began to march to a different drummer.

The film industry is alive, well and living in censorship-free Spain today. The problem oow is to get the public away from their TV and video recorders into expensive, often nncomfortable cinemas in sufficieot numbers to offer a better screen life for the deeply-persooal or the epic, the comic or intimately-tragic, the angry reviews of painful history or the slices of bigher or lower life that are the infinite variety of Spanisb films each year.

In 1985, 85 Spanisb films were produced—a startling figure in an era of world-wide cinema crisis. Nearly two dozen of these were of "special quality," earmarked for beavy official subsidies (up to 50 per cent of production costs) and assidnous nursing and promotioo by the official Film Institute at internatiooal festivals and Spanish film weeks that are affording the best of Spaolsh cinema more world exposure.

Behind tha Carlos Sauras of the Spanish film industry, with international acclaim and the plaudits of discriminating filmgoers in many countries for works like the 1975 Cria Cuervos—a portrayal of the painful conscionsoess-raising of a little girl io a household of decaying aod dying military and stifling repression—or the pounding aod pnlsing Flamenco versions using Antonio Gades' dance troupe, of Garcia Lorca's Blood Wedding, and Marimee's Carmen, queua many other young or youngish Spanish directors, makers of strongly-personal works that pay little heed to American-style commercial criteria, wbo want similar acclaim and the independent financial status a strong international reputation can bring.

Step by step, tied for now to official subsidies and official Industrial Credit Bank loans that make the difference between dreaming of making a quality film and being ahle to make it, they are building a reputatioo.

Deprived by the *fiarce censor*ship of the Franco years from making clesr-cnt film statements, directors who strove to make good films despite constraints in their formetive years lo the 1960s and early 1970s, then got the pent-up political and artistic vocabulary out of their systems in the free late 1970s, are now trying to find a filmic *modus vivendi* that no longer bas to be motivated by anger against censorship or exhilaratioo over release.

It is perbaps the most difficult phase wheo there are no excuses left, aod a film-maker must fiod his individual voice eod style without beoefit of scapegoats or catharsis.

"In 10 years, we have come 1,000 years," says Mannel Gutierrez Aragón, the 44-year-old director who made one feature film in tha iate Franco era and with his post-Franco work has taken several international and Spanisb awards.

Mr Gntierrez Aragón's first post-Fraoco film, Camada Negra (1977), an exposé of extreme right wing extortioolsts opereting in Spain after the dictator's death, won international prizes and praisa and hombs io the Spanish cloemas in which it was shown. Such furores no looger occur; and the softly-spoken, bespectacled director no longer feels an urge to make political films.

His La Mitad del Cielo (1986), subsidised by the Government, winner of this year's San Sebastian Film Festival Silver Shell and a box-office success io Spein (eoough to recover its $1m cost and perbeps clear aoother $1m in profit) stars tha current darling of the Spanish screeo, Angela Motina as a youog, impoverishad street vendor who climbs her way into the status of smart Madrid restauratrice.

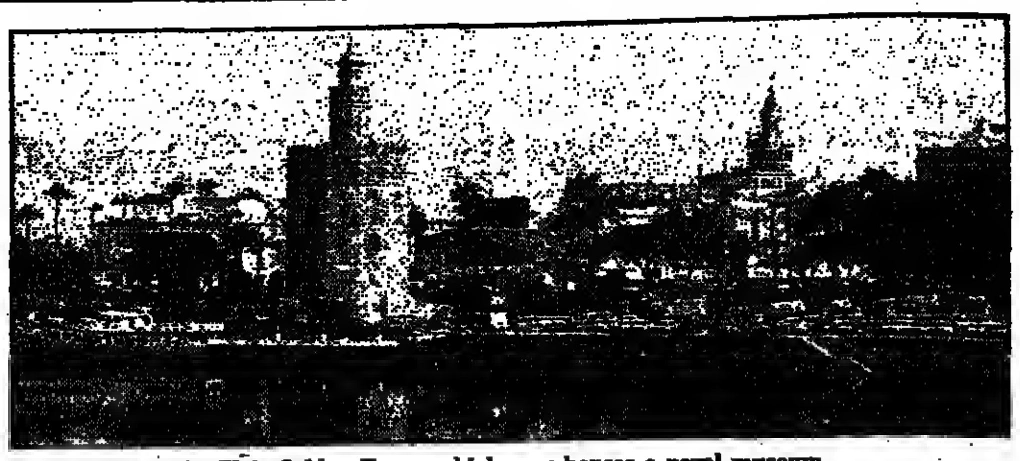
"Cloeme is a sponge," Manuel Gutierrez Aragón says. "Everything passes through it—every type of subject and style." Promtnent Spanish directors—José Luis Garci, who woo Spaio's first oscar in 1982 with Volver a Empezar, Mario Camus whose La Colmena won at Berlin in 1982, Jaime de Arminan, whose painful 1984 Stico starred the ubiquitous Fernando Fernao Gomez, actor, playwright and acreeowriter who vies for the title of most-freqnently-seen Spanish actor, with Fernando Rey and Francisco "Paco" Rabal, Montxo Armendariz, the Basque director wbose debut "Tasio," a chronicle of Navarre rural life, received high critical praise, Francisco Regueiro, using Fernando Rey in Padre Nuestro (1985), Jaime de Arminan, Jaime Chavarri, Antoni Ribas (a Catalan director emerging from a region that onca boasted a fiercely-iodependent Barcelona film movement virtually destroyed by Francoist trammels), Luis Berlenga, Jose Luis Borau, many others belong to s breed thet needs to make films as eagerly as some people need to drink spirits.

Are too many films made in Spain? Over 100 a year in the Franco era (including dozens of subsidised co-productions like Spaghetti Westerns made in Almeria with minimal Spanisb content), over 60 this year is more than economic criteria would approve of.

The new director of the official Film Institute, Mr Manuei Meodez Leyte, believes fewer, more polished and more commercially-viable features would be a good idea. Soaring production costs—from an average of Pta 16m in 1982 to an average of Pta 80m ($400,000) in 1985 and reliance on state subsidies and international promotion make uneasy film set-fellows, often.

Prestige and beavy bank loans can only be compatible when the bank is owned by the state and the prestige helps to burnish the latter 20th century image of Spain as a place where not only Madrid but Basque or Catalan film makers can work in a freedom that gives deep personal satisfaction but may not—in fact, rarely does—poll in the crowds at the box office. But if creation is the better part of value, Spaio's filmmakers are potent assets.

Diana Smith



Seville's Golden Tower which now houses a naval museum

Tourism

Updating for the image

IT IS HARD to overestimate the importance of tourism to the Spanish ecooomy. Primarily, it makes a critical contribution to the balance of payments; ceotral bank figures show that in the first nine months of 1986 Spaio's tourist earnings ($9.1bn) comfortably exceeded its trade deficit and lifted its overall current account well into surplus.

The Minister for Tourism, Mr Ignacio Fuejo, expects tourist earnings for the year as a whole to reach $11.5bo, $3.35bn more than in 1985. Allowing for the fact that tourist earnings are calculated in depreciating dollars, even in peseta terms, says Mr Fnejo, tourist revenue is up this year by around 18 per cent on 1985.

Tourism represeots 10 per ceot of Spanish gross domestic product, and provides work for ao estimated 11 per cent of the employed workforce (though it is of course hard to be precise, sinca tourist activities do not exclusively serve tourists). If official forecasts prove correct, and the number of tourists visiting Spain reaches 29m this year (a growth of 7.4 per cent), it would according to the mioister meao an increase of about 3 per cant in sectorel employment, at a time when job opportunities in the economy as a whole are scarce.

But even if tourism is Spain's biggest foreign exchange earner and economic mainstay, it still faces problems, not least of cost control. Labour costs and social security contributions have risen, putting up hotel prices. Food and restaurant prices are elso rising disturbingly, partly under pressure from value added tax, which Spain had to edopt on joining the European Community.

According to a recent OECD study, Spain is second among European nations only to France in its tourist accommodation capacity, with almost 15 per cent of capacity in the EEC. Tha country continues to attract large numbers of tourists, most seeking the by-now traditional sybaritic pleasures of the famous costas.

This certainly applies to the massed battalions of British, German and other northern sun-worshippers, but it applies less to transatlantic visitors who go more for Spain's historic, cultural and artistic attractions (Miami is a lot nearer than Beoidorm).

This year however has seen a sharp drop in the number of American tourists, in line with the trend elsewhere. The loss has heeo felt mainly in cities like Granada (20 per cent fewer tourists), Seville, Segovia, Toledo and Salamanca rather than in the seasida resorts.

Tourists to Spain

by country of origin

Country	Jan-Aug 1985 (m)	Jan-Aug 1986 (m)	Change (%)
France	7.96	8.32	4.5
Portugal	4.89	5.92	21.0
United Kingdom	3.47	4.45	28.3
West Germany	4.17	4.37	4.7
Morocco	1.70	1.67	−1.4
Netherlands	1.13	1.24	10.1
Belgium	0.84	0.90	6.9
Italy	0.77	0.81	5.0
Switzerland	0.68	0.73	7.5
US	0.72	0.51	−28.9
Sweden	0.39	0.42	7.5
Denmark	0.32	0.39	20.2
Norway	0.25	0.29	13.4
Japan	0.09	0.08	−7.2
Total all countries (including not 0sted above)	29.1	31.9	9.5

So although in crude numbers, the sbarp increase in British tonrists (apparently recovered from the mugging scares of 1985) has more than compensated for the drop in US tourists, tha loss has not been made good inland, since Britons are predominantly seaside package visitors wbo *also on the* whole spend less than Americans.

On the other hand, some provinces in northern Spain close to France, like Cataluna and Cantabria, have reported record numbers of tourists, many of whom will have been short-stay Frencb visitors whose inflated numbers might give a slightly misleading impression of France's relative importance in the tourist league table. Essentially the same applies to visitors from other neighbouring countries, Portugal and Morocco.

This year bas certainly been a vintage year for the package holiday trade, but the Spanish Government is anxious to entice people away from the beacbes and spread the benefits of tourism more evenly around the country.

"Even Spain's prodigal sun is outshone by the magnificeoce of its cultural riches" the latest tourist advertisements punningly proclaim. Between now and 1990, Pta 6.3bn per annum is earmarked for investment in tourism. More than half is to be spent on promotion, while the expansion and improvement of botel capacity comes next in line.

Mr Fuejo acknowledges that wbatever the OECD's aggregates might imply, Spaio needs more as well as better hotels if it is to succeed in dispersing its summer migrants around the countryside. In an attempt to encourage private investment, the state industrial holding Instituto Nacional de Industria (INI) has been divesting itself of some of its hotels in the state-owned Entursa chain, and passing on others to the state-owned Parador network.

Most "paradores nacionales" are formar castles or convents converted into botels. Hitherto loss-makers, this year it is hoped the 88 paradors might finally make a small profit. In the past couple of years hotel investment has taken off, with UK interests (Bass and Trust Hoose Forte) active at the luxury end of the market. But there is still a shortage of good, reasonably-priced hotels in Spain, especially in small undiscovered places which the Governmeot would like to put on the tourist map.

The other need is for improved transport and communications. Spain still does not have a motorway network comparable to those of France and Italy.

In an effort to remedy this, the Government is advancing the projected compietion of its road development plan from 1992 to 1990. It is also planning to invest more than $1bn a year on the railways between now and the end of the century. Tha rail network could benefit from improvement; faster and more reliable trains wltb proper dining car facilities would attract more peripatetic tourists.

The Government wants to change the image of Spain, to attract a more discerning pnblic of the kind wbo nowadays go ou motoring holidays to Tuscany or the Dordogne. Nevertheless, the legendary Spain of Hemingway is dying hard. Tbe *corrida* continnes to fascinate some and borrify others.

Some Spaniards campalgning to have the spectacla banned hlame—probably wrongly—its continuing popularity on the patronage of foreign tourists.

The tourism minister—not an aficionado—said he would like to see the more crnel aspects toned down, but as a folk fiesta bullfighting is likely to remain deeply rooted for some time.

David Rudnick